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ORIGINAL ARTICLES.

WHAT MEANS CAN BE JUDICIOUSLY EMPLOYED TO SHORTEN THE TERM AND LESSEN THE PAIN OF NATURAL LABOR?

BY JOHN MORRIS, M.D., OF BALTIMORE.

(Read before the Section on Obstetrics and Diseases of Women, June, 1883.)

In no one thing has the wisdom and genius of the age been more thoroughly exhibited than in the advance and elevation of the art of midwifery. Once considered an inferior branch of medicine, it has, through the vigor and enlightenment of those pursuing it, risen to the highest rank in the scale of the sciences. Men have learned to properly appreciate the knowledge and skill by which, in the most critical hours of existence, pain is ameliorated, sorrow assuaged, and life saved. Through the goodness of God, the original curse placed on the mothers of men has been softened, if not nullified. "In sorrow thou shalt bring forth children" will, before this generation has passed away, be but a record of the agony of the past.

In the consideration of this subject, my purpose is to present some views to you, based on my own practice, concerning the management of women in labor. My object in the presentation of these views is to elicit discussion and to bring out the experience of the gentlemen assembled in this Section, a large number of whom I know have practiced midwifery for many years. There is still, I hold, enough to be learned concerning parturition to engage the attention of even the most accomplished student. I shall confine myself entirely to the management of natural, uncomplicated labor, as my time is limited, and I deem this branch of midwifery of the most practical importance. Meddlesome midwifery is, of course, to be deprecated, and the suggestions I am about to make can only apply to what are termed cases of lingering labor.

There are three stages or conditions in which labor may become lingering, and to deal with these states successfully, different procedures must be made use of. First, labor may be lingering when the head is delayed at the brim of the pelvis; second, when the os has dilated to some extent, and the head has descended into the vagina; and thirdly, when it has reached the vulva and impinges on the perinæum. It is usual to describe lingering labors as occurring in the first and second stages, but I think the division I have adopted will serve better for the elucidation of the subject.

When labor is tardy in the beginning, the os dilating very slowly, the pains feeble and irregular, and the head high up, means may be carefully employed to hasten its progress; but if the woman is cheerful and hopeful, interference may be delayed. This delay must not be suffered to extend, as Churchill and others have recommended, for twelve or sixteen hours, for, if the woman's powers, are allowed to become exhausted in the first stage, instrumental interference becomes a necessity in the second. In the condition described the os is frequently dilatable, but the membranes do not come down to act as a dilating wedge. In these cases it is good practice to detach the membranes around the cervix, and Brown, of Vienna, recommends the introduction of an elastic catheter between the chorion and the walls of the uterus for this purpose; but this can be much better effected, in my judgment, by the cautious use of the finger. After the membranes around the cervix are detached in this way, if gentle pressure is used around the whole margin of the os with the soft part of the finger, gently stretching it, the bag of waters will commence to project, the os will gradually dilate, and the pains become effectual. I have seen many cases of labor in this stage expedited by this plan. In some instances the membranes rupture prematurely, and the head becomes the dilating force. These cases are usually very painful, but they can be greatly hastened if the finger be swept cautiously around the os at each pain. In cases of tardy dilatation of the os, due to rigidity, in which the woman suffers acute pain, the administration of opium is most beneficial, and should always be resorted to. A hypodermic injection of ten drops of Majendie's solution, or thirty or forty drops of McMunn's elixir, given internally, acts like a charm. Ineffectual contractions do injury to the woman, and when you cannot advance labor you had better arrest it. I do not think the administration of chloroform is wise at this stage.

There is occasionally a form of unequal, spasmodic contraction, well described by Velpeau, which is sometimes confined to the fundus, sometimes to one of the angles, or to a portion of the anterior or posterior wall, or one of the sides of the uterus. The pains are very acute, but merely exhaust the woman's strength, and, unless an anodyne is administered, labor will be prolonged indefinitely. Belladonna has been used and much praised as a remedy in this condition, but in my hands it has proved utterly useless. Brown's colpeurynter introduced into the vagina, and fully distended with hot water by means of Davidson's syringe, is, beyond doubt, the speed-

iest and best means to produce relaxation of all the parts and hasten the labor. It is astonishing how rapidly the os will dilate by the means of this instrument. I have seen by its use in cases of eclampsia, apoplexy, hæmorrhage, etc., the os sufficiently dilated in a few hours to admit of the application of the forceps, and a rapid termination of the labor. My experience in cases of this kind has taught me its usefulness in normal labor. The colpeurynter may be emptied and re-filled every half hour until dilatation is effected[1].

There is a condition of the uterus which retards labor and gives rise to trouble. The os is dilated to some extent, but the fibers of the cervix above it contract, forming a rim or band. Barnes' hydrostatic bags can be used with great advantage to relax the contracted cervix and allow the descent of the head; but in ordinary cases of contraction I think the colpeurynter serves a better purpose.

The long forceps are frequently resorted to when the head remains for a length of time at the brim of the pelvis, but their application will seldom be necessary if the means I have indicated be cautiously and judiciously employed. I have not found it necessary to perform what is termed the high operation more than three or four times in a midwifery practice of more than thirty-seven years. In addition to the measures I have suggested at this stage the patient must be kept out of bed in a vertical position, and not suffered to bear down or make any muscular effort. There is no doubt that the erect posture is the best before the head descends into the lower strait. The conservation of the woman's powers, too, at this period is of the greatest importance.

There is usually no danger to the life of the mother in the first stage of labor as long as the membranes remain intact, and, on this account, it may be argued that interference is not necessary; but this view I hold is both inhuman and unscientific. Inhuman because it condemns the woman to unnecessary suffering; and unscientific because it leaves agencies unused and powers unaided, which, if employed, would shorten a painful and vital process.

In what I term the second stage, that is when the head has descended into the pelvic cavity, there are two conditions of lingering labor. In the first, though the os may be pretty well dilated, the labor is retared by the firmness, dryness and want of distensibility of the vagina. Free injections of hot water are useful at this time, and if the membranes be intact it is good practice to rupture them. When the vagina is extremely dry and hot, after the use of the hot water douche, the introduction of a large cotton tampon saturated with glycerine and lard serves a good purpose in softening and dilating the parts. I would add, that if inertia exists at this point, the administration of a drachm or two of the extract of ergot aids the other measures most effectively. But if the arrest of the head is due to occipital-posterior positions it is unsafe and unscientific to administer ergot—the forceps is the only alternative. In these instances there is very little amniotic fluid and no bag of waters is found, indeed I have seen many cases which might absolutely be termed dry labors. After the rupture of the membranes, if strong external compression be used and the os gently stimulated and stretched by the pulpy part of the finger, the pains will be prolonged, the voluntary powers of the woman excited and strengthened, and the labor progress to a speedy close.

The second lingering condition in this stage is when the head is very low down in the pelvis; the os dilated to the size of a half dollar, and found far back toward the sacrum, the head of the child being curved as with a cap by the thinned neck of the uterus. This is a most painful state, and calls loudly for assistance. The membranes, if not ruptured, must be punctured immediately, the os stretched and drawn forward toward the pubis, and strong external pressure used during each pain. Ergot is not generally necessary in this condition, but if the pains are ineffectual, its administration is most beneficial; the labor is accelerated; the woman's voluntary powers are evoked; pain follows pain, and the case has a rapid and happy termination. One of the most trying features in these cases is the intense pain in the region of the sacrum. This can be greatly alleviated by the application to the spine of an embrocation of chloroform and oil of peppermint.

Since writing the foregoing portion of my paper, I assisted in a case, the results of which prove the practicalness of the suggestions I have made.

On the morning of the 28th of May, I was called in by Dr. Ashby, Professor of Obstetrics in the Woman's Medical College of Maryland, to assist him in a case of eclampsia. The doctor had been all night with the woman; had bled her, given hypodermic injections of morphine, and used chloroform very liberally. There was no external evidence of actual labor, but the os was slightly dilated. I ruptured the membranes, distended and stretched the os, pushed down the child by forcible external compression, applied Knight's forceps inside of the uterus, and terminated the labor in forty minutes from the time I reached the house. The child was living.

The most powerful aid in all these cases is forcible external compression. A number of mechanical contrivances have been used to support the abdominal muscles, and secure regular and equal contractions of the uterus, but they are awkward and cumbrous, and do not at all compare in usefulness with the intelligent human hand.

The third and last stage of lingering labor is where the head has descended to the perinæum and owing to inertia of the uterus, or exhaustion of the woman's vital powers, or to the rigidity of the muscles of the perinæum, the labor is indefinitely arrested. Hamilton reports a case in which the perinæum was supported in this condition for one hundred and twelve hours. Ergot may be used at this point combined with external compression, but if delivery does not take place speedily the forceps should be applied. Beattie's straight Dublin forceps is the best, being light and easy of application. These are simple tractors and can do no possible harm. I have observed that if we fail in manipulations with the for-

[1] If the colpeurynter is not at hand, a small bladder will act equally as well.

ceps the labor appears to be arrested and the woman's voluntary powers cease to act, consequently unless one feels convinced that the case will be terminated speedily by instrumental interference, it is better not to attempt it. I have frequently endeavored to extricate the head by passing two fingers into the rectum, but have failed in this maneuver for the reason that the force necessary to be employed is likely to injure the soft parts. The proper management of the perinæun is very important. I have been practicing for years a form of attenuation from the very moment that the head commences to impinge upon the outlet, and I believe that I have greatly assisted the efforts of the woman. If the head is still within the uterus at this point, it is good practice to make a sweep with the finger and push the os over the occiput. I generally deliver the patient on the left side, as that position is better for the touch and use of the hand, but sometimes I have thought I found good results from placing the woman on her back and allowing her to have a few pains in that posture. I am confirmed in this opinion by the experience of a case to which I was called the morning before I left home by Dr. George B. Reynolds, of Baltimore. The head had remained at the outlet for more than three hours without making the slightest progress, when the Doctor fortunately changed the position of the patient, and the labor was quickly terminated.

In conclusion, I would state that the great advantage of the procedures briefly suggested in this paper is, that should they fail, they do not interfere with the after-use of the forceps, but rather prepare the way for their easy application. Moreover, I hold that, if properly employed, they prevent those two *bêtes noir* of modern obstetrical literature, lacerations of the os and perinæum. In addition to this, I believe that post-partum hæmorrhage, that worst complication of midwifery, may also be averted, for it is the weary, out-worked uterus that floods, not the fresh and vigorous organ.

In making these suggestions, I do not wish to be understood as recommending an imitation of the *lesser labours* of the French, where the accoucheur, with rolled-up sleeves, presents himself in front of the patient, and with a great flurry and show of manipulation leads the bystanders to believe that he himself is doing the parturient work—but a scientific employment of measures which experience has proved to be both rational and useful in furtherance of the greatest physiological process known to mankind.

THE VALUE OF GYNÆCOLOGICAL TREATMENT IN HYSTERIA AND ALLIED AFFECTIONS.

BY PHILIP ZENNER, A.M., M.D., CINCINNATI, O.

[Read in the Section of Obstetrics and Diseases of Women, June, 1883, and referred for publication.]

That lesions of the female genitalia are sometimes productive of hysteria or allied affections; that the removal of the local lesion sometimes alleviates or cures the nervous disease is proven by past experience. Happy results thus obtained in the management of cases usually so intractable naturally inspire the hope that a like cause for these diseases will always be found and tempt one to the institution of like measures in their treatment. And in practice we actually see that it has become only too fashionable to institute gynæcological examination or treatment on account of the presence of some nervous affection. These efforts might be deemed laudable were it not that they have also their shadow side, that such measures may injure as well as benefit. That gynæcological examination or treatment may be productive of injury, that harm has been done in this manner should be fully recognized, lest injudicious measures throw entire discredit on the value of the assistance often afforded by the gynæcologist in the management of nervous diseases.

On account of the practical value of the questions in issue, it may not be unprofitable to consider the ætiological relationship of disease of the female genitalia to hysteria and allied affections, and the good or ill effects which may attend local therapeutical measures. Should the paper call forth the views and experience of eminent men here present, it may lead to valuable results.

Hysteria is a disease of the nervous system, perhaps affecting the entire nervous system; at least the great nervous centers are particularly involved. It depends upon peculiar pathological conditions of those centers which the microscope or other tests at present in our possession do not reveal. We therefore term it a functional disease. That a peculiar condition of the nervous system underlies the development of hysteria is seen in the fact that it usually occurs in individuals predisposed to such affections. The predisposition is generally of hereditary transmission. It is sometimes favored or acquired through false systems of education, the evils and abuses of modern society, the drain of exhausting diseases, the deprivations and toils of poverty or the like. How important a part the predisposition plays in the causation of the disease must never be forgotten when we consider the practical subjects prophylaxis and therapy.

The predisposition alone seems sometimes sufficient for the development of the nervous malady, though usually some exciting cause calls forth its first manifestations. Most frequently this is of psychic origin, emotional excitement, fright, or the slower action of some strong and absorbing passion. Not uncommonly the exciting cause appears to be some peripheric source of irritation, producing the disease in a reflex way.

The preceding remarks will enable us to consider more intelligently its ætiological relationship with diseases of the uterus and ovaries. The latter may in a reflex way, through irritation of the genital nerves, be the exciting cause of the disease in those already predisposed to it. Or they may through protracted pain or hæmorrhage, through depriving the patient of fresh air or exercise, in short through these injurious influences on general system at the same time produce the predisposition and be the exciting cause of the existing nervous malady.

Doubtless an important element in these cases is the deleterious influence of the mind's dwelling upon

the local disorder, which only too often has been intensified by local treatment.

But are local lesions a very frequent cause of hysteria? There are some who still hold that hysteria is always dependent on the disease of the female genitalia. But the facts that the disease occurs also in men; that it occurs in children before puberty; that frequently the most careful gynæcological examinations, and even post-mortem inspections, have revealed no pathological changes in those organs, and that it has been found where the uterus was congenitally missing remove all reasonable grounds for such views. It is even doubtful whether hysteria is very frequently due to such causes. Let us examine the grounds which have given rise to this belief.

A close relationship between genital functions and nervous diseases is seen in the frequent development of the latter in important periods of sexual life. The time of puberty and the climacteric periods are especially favorable for the outbreak of nervous diseases. The periods of gestation and lactation have, though less frequently, a similar record. During menstrual periods, existing nervous manifestations are usually aggravated. But we would little understand the great economy of nature, should we attribute these disturbances to mere local causes. The great changes in sexual life are changes, not in the local genitalia alone, but in the entire organism. And because the nervous system is unusually impressible at periods of such physiological importance, we must not falsely conclude that local pathological changes should produce trouble of like consequence.

It is an undoubted fact that hysteria and uterine diseases very frequently occur together. But we must not thence hastily conclude that the one must be dependent on the other. Probably, as a rule, this is a mere coincidence, a like soil being favorable for their growth. Both occur frequently in those who have borne children; both are common in weakly individuals, these conditions being favorable for the production of uterine disease, as well as for the development of hysteria.

We must not even draw too hasty conclusions from the favorable results of therapy.

Doubtless, in many cases reported as cured by gynæcological treatment, the rest, hygienic measures and constitutional treatment did much to bring about the happy result.

If, for the above reasons, we would warn against too hasty conclusions as to ætiological relationship, we can speak far more emphatically of the frequent inutility or needlessness of local treatment. It is no uncommon thing in practice to see uterine lesions disappear without improvement of the nervous symptoms, as also the cure of the nervous disease while the lesions in the genital organs remain. The great significance of such facts cannot be overlooked. As it is very interesting in itself, allow me, in this connection, to mention a case reported by Rosenthal. In a woman who had never menstruated, but with monthly recurrences of attacks of hystero-epilepsy, after everything else had been tried, Battey's operation was performed. For five months the attacks were very light, but after that lapse of time they became as severe as before. The shock of the operation probably caused the temporary improvement. But the "unsexing" the woman had no influence on the hysterical seizures.

The lack of therapeutic success by no means proves the absence of ætiological relationship. While a local disease may have been the predisposing or exciting cause of the nervous affection, the latter, depending on now existing changes in the nervous system, has become independent of the peripheral lesion, and is unaffected by its removal.

For this very reason must our therapeutical measures usually be directed to the condition of the nervous system, more than to the possible sources of peripheral irritation.

My first experience of this kind led me to hope for very much from local treatment. The patient was under my charge, while interne in the Cincinnati Hospital, in the service of the late Dr. M. B. Wright. She had been suffering for months with constant headache immediately following a lying-in. An examination revealed ulceration of the cervix. During the treatment of the latter condition the headache disappeared. At the time, I attributed the cure of the headache altogether to the local treatment. But it should not have been forgotten that while in the hospital the woman had rest, good nourishment, and tonic medication.

A second case was one of severe migraine, of four years' standing, immediately following a confinement. An examination revealed slight displacement and endo-cervicitis. A pessary was introduced. The patient subsequently became pregnant, and during her pregnancy was entirely free from headache (a not uncommon occurrence in cases of megraine). But after delivery the headaches soon re-appeared, and now, after a lapse of three years, are as severe as they ever were. A recent examination by a prominent gynæcologist failed to detect any uterine lesion. The entire history of the case indicates that the uterine lesion was probably the exciting cause of the megraine, but the cure of the nervous disease did not follow the removal of the cause.

A third case I shall mention is that of a woman 37 years of age, who suffered from megraine from girlhood. Uterine symptoms for many years. Some operation was performed four years ago; physician told her it was for intra-uterine tumor. Since that time her condition has been much worse. The headaches, previously occurring only in paroxysms, have become continuous and of great severity, and many other hysterical manifestations have appeared. Nothing abnormal can he detected in the pelvic organs. Here the change for the worse dates directly from the operative interference, and appears to be due to local measures.

I might add details of other cases in which gynæcological interference had entirely negative results.

In a recent number of the *Berliner Klinische, Wochenschrift* (No. 10), Peretti, physician to an asylum for the insane, gives the details of a number of cases in which gynæcological examination or treatment were directly productive of injury. In some, local treatment, in others a mere examination

either were the direct exciting causes of an outbreak of insanity, or greatly aggravated the condition of those in whom the disease already existed. In proof of the direct relationship between the gynæcological measures and the mental condition, he mentions that the patients usually had delusions or hallucinations of a sexual type, in which the examining physician was the central figure. In these cases proper constitutional treatment, without gynæcological interference, led to a full recovery.

Let us briefly consider in what way local measures may be productive of injury. We have above briefly referred to the great influence of the mind in the production of nervous diseases, and this is doubtless the chief source of injury here. To a sensitive maiden nothing is more distressing or humiliating than such examination, and the matron often experiences the same feeling. Besides, there is the deleterious influence produced by the knowledge of the presence of such lesions. There are no other diseases which cause the mind to dwell so persistently on the diseased organ as those of the genital organs. This fact is universally recognized, and in just such cases this influence of the mind is especially injurious. It is always an important part in the treatment, to divert the thoughts from the genitalia, as far as possible.

There is this further consideration that local measures may do harm in the same way as local lesions, that is, in a reflex way by irritation of the genital nerves. It is probably in this way that the aggravated condition of the third patient mentioned above, after an operation is to be explained.

These possibilities of injury should never be forgotten when resorting to such measures in the individual case. Playfair states that he has often known the condition of hysterical patients to be aggravated by injudicious gynæcological interference; and Freudenburg declares beginning nervousness to be rather a contra-indication to the institution of local measures, adding that more harm is done by the latter, than by their complete omission.

What, then, can be said as to the propriety of such interference in these cases?

Fortunately, according to the bulk of experience hitherto, an ætiological relationship appears to exist, and beneficial results from local measures seem to be obtained principally in displacements, metritis, and like conditions, where the lesions generally cause decided local symptoms and in themselves demand local treatment. The propriety of such treatment in these cases can not be questioned. But we can not too strongly condemn the promiscuous gynæcological examination of girls or unmarried women, merely because there are nervous symptoms.

And even when local lesions are present, if their treatment seems to aggravate the nervous symptoms through the influence of the mind, in a reflex way, or in whatever manner, it should be discontinued. It will always be necessary to individualize, and success will largely depend upon the wise choice and judicious management of the physician, at least until the time when a fuller knowledge will enable us to know more definitely where an ætiological relationship exists, and where local treatment must be of benefit.

In the meantime it must be remembered that the general treatment, the toning up of the nervous system, is always the most important object. In fact the duty of the physician demands much more than the mere treatment of existing nervous manifestations. He should attempt to prevent the disease, to eradicate the predisposition upon which it depends. He must warn society that the idle lives of its fashionable ladies, with just such employments or amusements as heat up an already wayward imagination, or foster the morbid feelings in their nature, must produce hysterical affections in them, just as overwork, intense application to business, and, even more, the unfortunately common habits of public and private gambling, are leading to immense mental injury among men.

The physician should follow the history of the predisposed individual and attempt to prevent the development of the disease. He should inculcate the practice of proper hygienic regulations in childhood, point out a system of education that will soundly develop body and mind, and lead to habits of self-control and unselfishness, but especially at the period of puberty, by suggesting useful employment or earnest study, should he guard against means that heat a naturally too fervid imagination, and, above all, try to keep the thoughts from the genital functions.

When the disease already exists, proper moral, hygienic and constitutional treatment, hydrotherapy, etc., and, in very obstinate cases, the plan of treatment brought forward by our eminent countryman, Weir Mitchell, will often lead to happy results.

ON THE PATHOLOGY OF PHTHISIS PULMONALIS AND ITS LARYNGEAL COMPLICATIONS.

[Read before the Philadelphia Pathological Society, at its semi-annual Conversational Meeting, Oct. 22, 1883.]

BY CARL SEILER, M.D., INSTRUCTOR IN LARYNGOLOGY AND LECTURER ON DISEASES OF THE THROAT AND NOSE AT THE UNIVERSITY OF PENN. LATE CURATOR OF THE PATHOLOGICAL SOCIETY, ETC.

In bringing the much discussed subject of the pathology of phthisis again before the Society an apology is perhaps owing which will be found in the renewed interest whch the investigations of Koch in the ætiology of this disease have aroused. It is, however, not the purpose of this paper to discuss the bacillus theory of tuberculosis nor to enter in detail into the pathology of phthisis. The main object is to sketch the laryngeal complications of phthisis, and point out their difference from those noticed in tuberculosis. This can, however, not well be done without first considering, in a general way, the differences between the two diseases themselves, and I will, therefore, in a few words relate my individual views on this subject—views which are not quite in accord with those of many of the authors on pathology, but which have forced themselves upon me by pathological study and clinical observations. Let us briefly review first the characteristics of the disease known as *tuberculosis*. It may be defined as an auto-infectious disease manifesting itself primarily in the production of minute neoplasms, which may be localized in one

organ and invade others by metastasis, as when they occur in the lung and later show themselves in the larynx, or they may be disseminated throughout the system invading all the organs, as in general tuberculosis. These neoplasms, or miliary tubercles as they are termed, rapidly undergo retrograde metamorphosis which ends in caseation.

Histologically considered these tubercles consist mainly of a collection of granular lymphoid cells surrounded by a delicate reticulated tissue. Large, often branched and multinucleated cells are frequently seen which, according to some authors, are true giant cells and considered by them as characteristic of tubercle, but which I am inclined to look upon with others as sections of obstructed lymphatics, or lymph spaces, the endothelium of which has proliferated. As the tubercles grows older and the retrograde metamorphosis progresses, the cellular elements become converted into a collection of granular material and finally a cheesy degeneration takes place which involves the whole tubercle, obliterating it as such. The deposit of tubercles in the lungs occuring primarily in the interalveolar connective tissue, gives rise to a variety of changes in the lung tissue itself, the magnitude of which depends upon the number of the tubercles and the rapidity with which they are formed and decay and also upon the condition of the system at large.

In the first place a low grade of inflammation is set up in the immediate neighborhood of the tubercle the exciting cause being the tubercle itself. A small celled infiltration invades the alveolar walls. The epithelial cells lining the alveoli proliferate and become detached and swollen, thus filling the lumen of the alveoli, causing consolidation of the lung tissue. The pressure exerted upon the capillaries in the alveolar walls by the filling of the alveoli as well as by the infiltration of the connective tissue interferes with the circulation. Nutrition of the tissue being thus cut off and the absorption of the inflammatory products by the lymph channels made impossible, death of the tissue must necessarily set in sooner or later. At the same time the inflammation being cut short no new inflammatory products are thrown out, and those already existing undergo retrograde metamorphosis into cheesy degeneration.

This same pathological picture is found in every organ of the body and is but slightly modified by the histological differences of the tissues in which the tubercle is deposited. Thus, for instance, in the mucous membrane of the larynx it is the glands and follicles which furnish the proliferating epithelium and because the capillary network is spread over a much larger area than is possible in the thin alveolar walls of the lungs, death of the tissues by obstruction of the circulation, *i. e.*, ulceration occurs in spots while the surrounding tissue is still in a state of inflammation.

The ultimate result of pulmonary tuberculosis as we all know, is a rapid breaking down of the lung tissue and death of the individual within a few months from the onset of the disease. There are, however, a few cases in which the deposit of tubercles takes place in a very limited portion of the lung tissue only, and which will, under favorable circumstances remain isolated, becoming encysted by a wall of fully formed connective tissue the result of a higher grade of inflammation, to which the tubercular process has given rise in the surrounding tissue. There are also some few cases in which a limited number of tubercles are deposited in various portions of the lungs and which by their presence give rise to an inflammation followed by consolidation and decay of the lung tissue. This consolidation differs, however, from that produced directly by the tubercular process, and is identical with the pathological process seen in phthisis.

The outbreak of tubercle in an organ or throughout the body is, in my opinion, not dependent upon the introduction into the system of infectous material which originates external to it, but is caused by the dissemination of infectious material existing within the system, though it may have remained latent for a long time. This infectious material, however, can only be found under a peculiar condition of the system in the form of cheesy deposits, and this condition is known as scrofula. Scrofula existing as it does in certain animals and individuals of the human race depends, according to Dr. Formad, whose theory seems plausible, in an abnormal richness of cellular elements and narrowness of the lymph spaces of the connective tissue. If, then, under these circumstances an inflammation occurs the narrow lymph spaces become clogged by the inflammatory products unusually rich in cellular elements which, undergoing retrograde metamorphosis become cheesy deposits instead of being carried off or becoming organized as is the case in the normal condition of the tissue. A cheesy deposits of this kind may remain dormant in the organ in which it has been formed for an indefinite period, but if by any chance portions of it enter the lymphatic circulation, tuberculosis is the result.

The transmission of tuberculosis from one person to another which is occasionally met with, can easily be accounted for by the facts that the person becoming infected was either scrofulous from the start, although the diathesis may not have shown itself prior to the deposit of tubercle or, what is more likely, the early history of glandular enlargement, and so forth, has been overlooked and the fatigue and privation consequent to the nursing of the tubercular patient has given the necessary impetus for the production of the disease; or else the vitiated atmosphere, fatigue, loss of sleep, and the mental strain and anxiety prior to and after the death of a husband or wife affected with tuberculosis, reduces a formerly normal constitution to a scrofulous one and renders the faithful nurse liable to contract the disease.

Transmission of tuberculosis from a patient to a nurse or attending physician, where the latter are not exposed to the evil effects of bad sanitary surroundings and where they are not scrofulous, has, I think, never been observed. In regard to the causation of the disease by the introduction of bacilli or bacteria into the system of healthy, non-scrofulous persons, I am not prepared to express an opinion, since the sub-

ject has as yet not been sufficiently investigated, and the experiments on animals are, to my mind, not conclusive enough to warrant the acceptance of the bacillus theory of the causation of tuberculosis. Scrofula usually is inherited, but it may be acquired, and is then caused by anything which lowers the vitality of the system at large, and particularly diminishes the hysto-genetic power of the products of inflammation.

Phthisis, on the other hand, may be defined as a progressive consolidation of the lung tissue, due to a more or less localized inflammation, affecting primarily the apices and undergoing retrograde metamorphosis. Phthisis is an inflammatory disease. Histologically considered, this consolidation of the lung tissue consists of an infiltration of the alveoli by inflammatory products, and exudation from the blood-vessels containing a number of leucocytes. Under the microscope it closely resembles the alveolar contents seen in catarrhal pneumonia; that is, it shows a fibrinous structure, intermingled with granular débris, red and white blood corpuscles. This infiltration begins to soften and undergo a sort of mucoid degeneration, when the epithelium of the alveolar walls proliferates. The epithelial cells, on account of a want of vitality, instead of multiplying by division, simply increase in size, and becoming detached, intermingle with the contents of the alveoli, filling them completely. They also undergo degeneration, so that they are soon not recognizable as cells. At the same time, a small-celled infiltration occurs in the alveolar walls and in the interlobular connective tissue, which, possessing a certain amount of hysto-genetic power, changes into a low form of fibrous tissue. This infiltration is noticed also, very early in the disease, in the peri-bronchial connective tissue. The macerating influence of the semi-fluid contents of the alveoli upon the epithelium soon denudes the alveolar walls of their protecting covering, while the pressure of the interalveolar infiltration upon the capillaries interferes with circulation, without, however, obstructing it entirely, and thus the first step toward destruction of the lung tissue by ulceration is taken.

The gradual breaking down of the interalveolar tissue merges the contiguous air vesicles into one, and a cavity is formed, which may or may not be surrounded by a wall of newly formed connective tissue, the formation of which depends upon the amount of inflammation excited in the contiguous lung tissue by the ulcerative process, and also upon the amount of hystogenetic power possessed by the inflammatory products. If, in the progress of decay, a larger blood-vessel is opened, a hæmorrhage is the result. After a time, the interlobular and peribronchial connective tissue is largely increased in thickness by a deposit of newly formed fibrous tissue, which gives rise to an alteration of the circulation in the bronchial mucous membrane, causing first inflammation, with proliferation of the epithelium on the surface, as well as in the glands and follicles, and later anæmia by pressure upon the capillaries, and often ulceration. There are, however, many cases in which, by proper nourishment and better oxygenation of the blood, the hystogenetic power of the inflammatory products is increased, while the alveoli are evacuated of their contents by expectoration, and the consequence is an isolation of the cavities by a strong wall of connective tissue, and the formation of fully formed fibrous tissue in the interalveolar and interlobular connective tissue, which formative process tends to cut short the retrogade changes in the lung tissue.

The different forms and stages of phthisis, as they are recognized and described by some authors, are merely differences in the degree of the inflammatory process, or in the extent of the retrograde change.

Phthisis is produced by a peculiar condition of the system at large, which may be designated as impaired vitality, and by a peculiar predisposition of the lung tissue to inflammation, which may be termed weakness of the lungs. Both these conditions may be, and mostly are, inherited, but in many cases they are acquired. The children of parents who are phthisical or syphilitic, have been drunkards or suffered from a cancerous disease, inherit a lowered vitality, not necessarily scrofula, which shows itself in a want of hysto-genetic power of the inflammatory products, and also in a weakness of the lungs and upper air passages, predisposing them to chronic inflammation.

Insufficient or inappropriate food, want of exercise and of fresh air, long continued mental strain, peripheral nervous irritation, and acquired syphilis, are among the most potent factors which will produce this same lowered vitality of the system and its histological elements in individuals who have not inherited this peculiarity. Thus, for instance, uterine disease will frequently give rise to phthisis, by peripheral irritation and the consequent lowering of the vitality.

Phthisis will be developed in other cases by the prolonged sojourn in badly ventilated rooms or workshops the air of which is laden with dust or noxious gases, and thus we find that shoe-makers, carpet-weavers, cigar-makers, and operatives in cotton mills supply a very large percentage of all cases of phthisis in large cities. Obstruction of the nose by hypertrophic nasal catarrh or by tumors, also may, and often does, produce phthisis in a considerable number of cases, as I have had occasion to observe, because if the nasal cavities are obstructed, and respiration has to be carried on through the mouth, the lungs are not sufficiently expanded, and the inadequate oxygenation of the blood gradually lowers the vitality of the system. And finally, we see phthisis developed often during the convalescence from exhaustive diseases, such as typhoid fever, diphtheria, and others, if the lung tissue is exposed to an injury giving rise to inflammation.

However, both in the inherited and acquired predisposition, it is necessary that an injury should be inflicted upon the lung tissue before the inflammation can be set up. This injury usually consists in exposure to cold—that is, a chilling of the surface of the body; but other factors are also frequently the cause of the initial inflammation, as, for instance, the inhalation of irritating vapors, or of air charged with particles of solid matter, the sucking into the air vesicles of purulent mucous from the bronchioles in

a state of inflammation, traumatic injury to the chest walls, the formation of gummata in or around the lungs, and others of a like nature. But these causes, are not of sufficient potency to produce phthisis in subjects of vigorous constitution, or cannot produce much destruction of lung tissue if the vitality of the system be elevated.

Thus it will be seen that proper hygienic measures are capable of not only preventing the outbreak of phthisis in subjects predisposed to it by heredity or otherwise, but also are liable to cure phthisical patients in which the destruction of the lung tissue has not gone too far.

If, on the other hand, the process of destruction has gone on for a long time and has involved a large portion of the lung, the system gradually loses more and more of its vitality and finally becomes scrofulous by the narrowing of the lymph-spaces in the connective tissue. When this point has been reached tubercles appear in the affected lung tissue and bring about an early fatal termination of the disease. But be it understood that the low-type chronic inflammation has existed long before the tubercles have made their appearance and it alone, without the intervention of the neoplasm, may cause death.

It is this complication and intermingling of the two diseases which has given rise to the confusion of terms existing in the literature on the subject of consumption, for we find almost everywhere the terms phthisis and tuberculosis used as synonyms.

The laryngeal manifestations of phthisis are so varied and manifold that it is difficult to give a general idea of their clinical features and pathology. and it will, therefore, be more comprehensive to describe them seriatim. They are never seen to occur prior to the disease of the lungs, although the latter may be so slight as to escape detection by the ordinary methods of diagnosis, and the laryngoscope then furnishes the earliest evidences of phthisis. Those lesions of the larynx giving rise to subjective symptoms occur quite frequently, that is, in about 33 per cent. of all cases, while certain changes in the shape of portions of the larynx and in the color of the mucous membrane, not noticed by the patient, are seen very early in the disease in the great majority of cases. These latter changes consist in an ashy paleness of the mucous membrane which spreads to the pharynx, palate and mouth and is different from the anæmia seen in other diseases. This pallor usually persists throughout the course of the disease, but there are cases in which here and there spots of heightened color and patches of ecchymosis are seen, usually in those portions of the larynx which are subject to increased and long-continued irritation, such as the free margin of the epiglottis, the inner surface of the arytenoids, the vocal cords, etc. No tumefaction of the tissues, or ulceration, or even inflammation, being present, this condition does not give rise to subjective symptoms, passing unnoticed unless the laryngoscope be used as a means of diagnosis of the lung trouble.

The pathological process in the mucous membrane giving rise to this particular pallor I am not prepared to describe, not having had an opportunity to examine microscopically the tissue of a larynx exhibiting this condition only.

Frequently this anæmia is accompanied by tumefaction of certain portions of the larynx, a swelling which somewhat resembles the œdematous distension of the mucous membrane met with in acute and chronic laryngitis, for which it may be mistaken. The most common seat of the swelling is the tissue around the arytenoid cartilages, extending upward into the ary-epiglottic folds. It thus assumes a peculiar shape resembling a pear, from which resemblance the term "pyriform" swelling has been applied to it. The tumefaction affects either the tissue around both cartilages in an equal degree, that is, it is bi-lateral, or one side is more swollen than the other, and if this is the case, the greatest amount of intumescence is always found on the side of greatest lung implication. These pyriform swellings at times become so large as to interfere with the approximation of the vocal cords, and to encroach upon the lumen of the laryngeal cavity.

Less frequently and usually later in the disease the tissue covering the upper portion of the posterior aspect of the epiglottis also becomes tumefied to a considerable extent, and gives the organ a peculiar rolled up shape resembling in the laryngeal image a grub worm. But the swellings are not confined to the localities mentioned, and may occur in any portion of the larynx. Thus there are cases in which the arytenoid cartilages, the epiglottis and the ventricular bands, and probably also the vocal cords are in such a state of intumescence as to prevent a view of the vocal cords and encroach to such an extent upon the lumen of the laryngeal cavity as to necessitate tracheotomy to prolong life. Under the microscope these swellings are seen to be due to an extensive infiltration into the sub-mucous connective tissue of small granular lymphoid cells. The normally numerous glands are also invaded by the infiltration and deposit of a fibrous tissue around the accini and ducts. The lumena of the ducts and of the accini are filled with unusually large prolypherated epithelial cells, which, in many instances, have undergone retrograde changes leaving the ducts and accini filled with a granular débris. The peri-vascular connective tissue is considerably increased in thickness and the lymphapatics filled with lymphoid cells. A certain amount of serous exudation is also present, which is demonstrated by the fact that a considerable shrinkage takes place in the size of the swellings when the specimen is kept after removal from the body for a few hours before immersing it in the hardening solution. Nowhere are miliary tubercles or cheesy deposits to be seen in the tissue. In many cases no other manifestation than these tumefactions are noticed, and in a few instances have I seen the pyriform swellings disappear under the appropriate treatment together with the healing of the affected lung. There is another class of cases in which either no tumefaction of this tissues occurs or in which it is very slight and spread over a larger surface. In these ulcerations begin to appear in various portions of the larynx which are in appearance like the shallow erosions of catarrhal inflammation of the larynx. They usually are situated at the free margin of the epiglottis, in the inter-arytenoid space,

and on the laryngeal face of arytenoid cartilages, less frequently on the ventricular bands, ary-epiglottic folds and the vocal cords.

In post mortem examinations I have often found them in the trachea and bronchi and usually occupying in the former that side on which the greatest amount of disease in the lung was found. In the larynx their shape varies with the position which they occupy, being linear on the vocal cords, ovoid on the ventricular band and oval or roundish on the epiglottis. Their tendency is to spread on the surface of the mucous membrane, but not to invade the deeper structures, except where the excretory ducts of glands become involved when a pit-like depression in the bed of the ulcer can be seen. A grayish white, moderately stiff, excretion covers the surface, and they are very senstive to irritation, giving rise to pain in deglutition and phonation according to their situation. Under the microscope the tissue does not present any marked difference from the picture presented by the tumefactions, except that the small-celled infiltration is more densely crowded around the ulcers and the epithelium at their edges is turbid and granular. When a gland duct is implicated, its epithelium has disappeared and it is seen to be filled with granular débris. The lymph-spaces are occluded by cellular elements near the edge of the ulcer, and capillaries and smaller vessels almost filled with prolypherated endothelium.

In other cases still we see projections resembling exhuberant granulations in the inter-arytenoid space often reaching into the laryngeal cavity, thus interfering with the approxiation of the cords and giving rise to aphonia. These neoplasms may remain unchanged for a considerable length of time to be destroyed by the ulcerative process towards the end of the disease, or they may disappear spontaneously like papillary growths on the external integument of the body are prone to do. The only specimen of a growth of this kind which I obtained by evulsion with the forceps, showed under the microscope its epithelial origin, being identical with the tissue of an ordinary papilloma, except that the connective tissue stroma was densely infiltrated with small lymphoid cells so as to be barely distinguishable except by teasing the sections.

These manifestations of phthisis in the larynx remain often unchanged for along time, or make but little progress as the lung disease advances, or they may disappear altogether under appropriate treatment, even before the disease in the lung tissue has been fully arrested in those cases which terminate in recovery. But as soon as tubercles are deposited in the lungs the laryngeal lesions also develop a tubercular character, and a rapid change for the worse sets in.

The same ætiological factors which give rise to the lung disease, viz., the lowered vitality of the system, the want of hystogenetic power of the inflammatory products and the predisposition to inflammation or weakness of the organ also cause the laryngeal implication, and if any injury by cold or otherwise starts an inflammatory process in the laryngeal mucous membrane, it will be of a phthisical type. The continuity of tissue between the alveoli of the lung and the mncous membrane must also be taken into consideration as an ætiological factor. But I do not believe with some authors that the irritating influence of the expectoration from the lungs can give rise to the erosions or ulcerations seen in the larynx, as it does not become inspissated, and therefore cannot act long enough to destroy the epithelium. These ulcers are rather due to mechanical injuries depriving a small portion of the mucous membrane of its epithelium which is not regenerated. And now let us glance for a moment at the picture presented by the laryngeal lesions in tuberculosis, which has been so admirably delineated by my friend, Dr. J. S. Cohen, in an exhaustive paper read before the society a year ago, which I am sorely tempted to quote verbatim, were it not for want of space and time, and I must therefore confine myself to mentioning only the salient points of contrast as they have presented themselves to my observation. The laryngeal lesions in tuberculosis giving rise to subjective symptoms are much more frequent, occurring as they do in about 53 per cent. of all cases. The primary deposit of tubercles in the larynx, although not usual nor frequent, has been observed in several cases, one of which came under my own observation. The mucous membrane is usually of a livid red color, which is intensified around the ulcerations. The tumefaction of the tissue is more circumscribed, and occurs more generally in the anterior portion of the larynx. The ulcerations are deeper, have raised and serrated edges and cause often great destruction of tissue. Pseudo papillary neoplasms are never seen, and true miliary tubercles as well as cheesy deposits have been demonstrated in the tissue of the larynx. At the same time, complete occlusion of capillaries and lymph-spaces in the neighborhood of the ulcerations may be seen under the microscope. And finally, the existence of these lesions is but a short one, for they depend upon the deposit of tubercles in large numbers, and rapidly progress toward the fatal end.

As in tuberculosis of the lung or general tuberculosis, laryngeal tuberculosis is due to scrofula.

And now let us briefly consider what pathology has to teach us in the prognosis and treatment of these diseases. Tuberculosis from the start is a fatal disease except in the rare cases in which the deposit of the neoplasms is so limited in number and in which they become encapsulated, the poison being antagonized by considerable power of the hystological elements of the tissues and the inflammatory product to form new tissue. Treatment avails us nothing, for I will ask have we time to so improve the general health and to change the anatomical condition of the connective tissue to prevent the ulcerative process and have the resulting inflammation terminate in resolution? Clinical experience answers "No" to this question. All we can do in these cases is to alleviate the suffering and prolong life as long as possible and make it endurable. We can, however, prevent the outbreak of the disease by preventing the formation of the initial infectious material and by changing the scrofolous character of the system of our patients in early

life. And further we can use our influence as medical advisers of families to prevent the intermarriage of blood relations, of syphilitic and of scrofulous persons. The prognosis of phthisis on the other hand is not nearly as bad, and we may reasonably hope for recovery if the proper treatment be instituted early in the disease.

Since the low type of inflammation is dependent upon a lowering of the vitality from any cause, we must direct our efforts to elevate and strengthen the constitution by proper feeding and healthful exercise in the open air, and prevent the too rapid cell death by the judicous exhibition of alcoholic stimulants. Digestion as a rule being impaired we should exercise great caution in giving drugs and especially cough syrups. At the same time we must strive to evacuate the alveoli of their contents, which by entering and remaining in the bronchioles irritate the mucous membrane and give rise to the frequent and distressing cough. This may be accomplished with marvelous success by forcible inhalations of warm and moist vapors, not under pressure, however, for as has been lately demonstrated the lung tissue is not air tight when undue pressure is exerted upon the alveolar walls for any length of time, and air will enter the blood vessels causing instant death. By thus removing the irritant from the bronchial tubes the cough is alleviated much more quickly and more satisfactorily than is possible with expectorants acting through the stomach. The treatment of cavities in the lung tissue, as instituted by our illustrious member, Dr. W. Pepper, and its success by injections and drainage are too well known for me to dilate upon here.

As regards the lesions in the larynx, only the mildest possible applications in the mildest possible manner should be employed, for be it remembered that mechanical injury will give rise to the ulcerations, and therefore all harsh treatment with the probang or brush should be avoided.

The treatment as thus outlined has proved eminently successful in my hands, as well as in those of others, and I am happy to be able to say that there are numerous cases of cured phthisis in this city at the present time. But even the best and most successful treatment is not equal in efficiency to the prevention of the disease; and, as in the case of tuberculosis, we can do far more good by teaching our patients to observe hygienic laws and to elevate the vitality of their system, thus preventing the possible outbreak of the dread disease. We should also be very careful to search for and remove any source of irritation which might ultimately produce phthisis.

To sum up my remarks, I will state that, in my opinion, *tuberculosis* is produced by infectious material entering the lymphatic circulation which does not originate outside of the body, and that the disease is incurable. Further, that *phthisis* is due to a low grade of inflammation of the lung tissue, and is curable in the earlier stages That both tuberculosis and phthisis give rise to laryngeal complications and lesions which are distinct in character, and differ from each other both in their clinical features and in the pathological changes of the tissues. And finally, that both diseases, although totally different in their ætiology and initial pathological lesions, may co-exist and produce each other, and that the indiscriminate use of the terms tuberculosis and phthisis in our literature must necessarily mislead the student, and make careful investigation extremely difficult.

THE TREATMENT OF PSORIASIS.

BY ARTHUR VAN HARLINGEN, M.D.

[Read before the Philadelphia County Medical Society, October 17, 1883.]

Psoriasis is one of the commoner skin diseases met with in this country. The statistics of the American Dermatological Association show that it occurs in the proportion of about 6 per cent. in all diseases of the skin encountered. Daily experience would seem to indicate a still more frequent occurrence, because the affection is a disfiguring and annoying one, and therefore patients are more inclined to seek relief, and also because it is a stubborn disease and greatly prone to relapse. The history of a single case will often extend over many years, and bring it under the observation of a number of different physicians.

It is because of the comparative frequency with which psoriasis is met and its stubborness to treatment, that I have selected it as the subject of my remarks this evening. Having had a good deal of experience in the treatment of the commoner forms of the disease, it is my intention to confine myself chiefly to the consideration of such remedies as have come under my own observation and use, only touching incidentally on others.

The object of treatment in psoriasis is the removal of the eruption as it exists upon the skin. We cannot hope with any degree of certainty in any given case to prevent a recurrence of the disease, or, if you please, a relapse. For the drug has not yet been discovered which will surely take away all tendency to the recurrence of psoriasis, and whoever promises a cure, in the wider sense of the word, to his patient, will in a very great number of cases find that he has been too sanguine. Fortunately, however, a certain number of patients do seem to recover. I do not know what has been the experience of others in this respect, but I have patients who have been under observation three, five, even eight and ten years without relapse. Such cases are, unfortunately, few.

Preëminent among the internal remedies which are useful in the treatment of psoriasis, is arsenic, which may be justly called a specific in this disease. I think I am not asserting too much when I say that eight out of ten cases of psoriasis of average character and severity, shall do better under the use of arsenic than with any other remedy. I prefer Fowler's solution given in the average dose of four minims thrice daily. I think this solution is often prescribed in too large doses, and I am sure the dose of five to ten minims, as given in the books, is too large for ordinary use. Most patients bear a four minim dose very well, but there are idiosyncrasies. I have sometimes been obliged to limit the dose at the beginning to one minim in cases where subsequently such toleration has been established that twelve minims have been taken with impunity. However, four minims

is a good dose to begin with, and if the effect does not begin to show itself within ten days or two weeks the amount may be gradually increased. Fowler's solution should never be given to the patient in a vial with the directions to drop out the requisite number of drops. The patient is apt to make a mistake, vials of different sizes may pour out more or less in each drop, and there is always danger in leaving a half empty vial of poison about the house. The solution is better given mixed with water, or with wine of iron or other convenient vehicle.

The effect produced by arsenic upon the eruption of psoriasis is first, in diminishing the quantity of epidermic scales thrown off, and then in preventing the appearance of new lesions. The patches gradually lose their scaliness, begin to heal in the middle and disappear little by little. It must be remembered, however, that arsenic is a slow acting remedy, and its use should be continued through many months to get the best security against relapse.

The other liquid preparations of arsenic used in psoriasis are Pearson's solution of the arseniate of sodium, and Donovan's solution of the iodide of mercury and arsenic. I have used the former in a few cases without noticing any perceptible difference as regards efficiency between it and Fowler's solution. The solution of mercury and arsenic (Donovan's), I have employed in certain stubborn cases with good effect where Fowler's solution has seemed to fail. The existence of syphilis as the cause of the eruption in these cases having been excluded, I am at a loss to account for the apparently greater efficacy of the mixed treatment. The dose given was as much as ten drops, and although this solution is weaker in arsenic than Fowler's, yet I am inclined to the opinion that the conjoint administration of the two drugs, mercury and arsenic, was the cause of the good result rather than the increased dose. I should be inclined to use Donovan's solution in cases where Fowler's solution shall have failed.

The mixture of arsenious acid, black pepper and sugar of milk, known as Asiatic powder, and recently placed in the Pharmacopœia with the pepper left out, among the triturations, is of no particular value above the other preparations, and it is not so convenient of administration.

Hypodermic injections of solutions of arsenic have been employed in the treatment of psoriasis, but I have had no experience in their use.

Next in value to arsenic in the treatment of psoriasis, is iron. I commonly employ the tincture of iron in cases where arsenic does not seem indicated. There is one type of psoriasis which includes robust, rosy, well-nourished individuals, "the very picture of health." Such people have never been sick a day in their lives, or perhaps may have had slight attacks of articular rheumatism. Such patients do well under arsenic.

But there is another type in which the individual is thin, poorly nourished and perhaps somewhat anæmic. These are the cases which do well under iron, which is best administered in the form of the tincture of the chloride. With these two remedies, arsenic and iron, I usually succeeded in curing ordinary cases of psoriasis, adding in rare cases cod-liver oil to the use of the tincture of iron when debility is present. Of course local applications are employed at the same time. Of these I shall speak presently.

In addition to the internal remedies mentioned, quite a host of others have been employed from time to time. Such are tar, carbolic acid, copaiba, phosphorus, tincture of cantharides, tincture of maize, carbonate of ammonia, acetate of potassium and other diuretics; the alkalies, as liquor potassa and the alkaline mineral waters. Of these I have found alkalies and diuretics useful in cases when a markedly inflammatory condition of the skin has existed. The other remedies I have not employed, nor do I think the reports of their usefulness based on a sufficient number of facts, except in the case of tar, possibly, to make it worth while to try them.

Equally important with the internal treatment of psoriasis is the external management of the disease. It is, of course, desirable to remove the eruption as soon as possible wherever it may be situated; but when it is found upon the face, there is every reason to endeavor its cure by all means and in the shortest time. External and internal treatment should therefore be combined when practicable. The first thing to do is to remove the scales. This may be done by means of local or general baths, wet dressings, etc., or by inunctions with fats and oils, by the use of soap, or by the action of impermeable dressings of India-rubber or oil silk. When only a few lesions are to be acted upon, a solution of salicylic acid in alcohol, one part to sixteen, well rubbed in with a sponge, will remove the scales very nicely.

The scales having been removed, the next thing is to apply such substances to the diseased patches as may most quickly modify the abnormal condition of the skin, and bring it back again to a healthy condition.

An innumerable number of applications have been recommended for this purpose, the most of which I shall pass over with only a mention. Such have been soaps and alkalies, citric and hydro-chloric acids, sulphur, iodine and mercury, alone and in combination, together with the various forms and preparations of tar, creasote and carbolic acid.

All of these remedies have their uses, and most of them, especially the tarry preparations, I have employed time and again in years gone by, and with moderate satisfaction. The introduction, however, of chrysarobin or chrysophanic acid some six or seven years ago, put quite a new face on the local treatment of psoriasis; and since then, with the aid of this and other later discoveries, we are able to work a much more rapid change in the appearance and condition of the skin in this disease.

As chrysarobin is perfectly well known to all here present, both as to its advantages and defects, I shall say but little about it in the ordinary form of its application, namely, as an ointment. When it first came out I tried it quite extensively, but its disadvantages seemed so great that I had already begun to restrict its use greatly in my practice, when a new agent appeared, which for every-day use has in my hands, un-

til very recently, almost entirely superseded all other local applications. I refer to pyrogallic acid.

I do not think that pyrogallic acid is by any means so well known as an application for the relief of psoriasis as is chrysarobin. If I may judge by the infrequency with which its virtues are mentioned in the journals (although I believe all recent text-books speak of it), it is not in general use. But it is, in my opinion, one of the very best remedies we have for the cure of cases of psoriasis of average severity. Employed in the form of ointment, of the strength of one-half to one drachm of the pyrogallic acid to one ounce of simple ointment, the effect produced by it is almost as rapid and decided as that brought about by chrysarobin, without the accompanying discoloration. A slight blackish staining is all that is produced, and the ointment can even be employed in the scalp without markedly discolorizing the hair, if applied cautiously. It is desirable. however, not to apply soap or alkalies at the same time, because this causes a more permanent and deeper stain.

Pyrogallic acid cannot be used in extensively generalized psoriasis, when large surfaces are affected by the disease, without a certain amount of danger from absorption, as indicated by strangury and olive-green or tar-colored urinary sections. With care, however, and the occasional suspension of the remedy for short periods, I believe this remedy could be employed even in universal psoriasis with good effect.

One more external application in psoriasis remains to be spoken of—namely, naphthol. This drug, a derivative of coal tar, was introduced into use several years ago by Kaposi, of Vienna, as a sort of substitute for carbolic acid. He recommends it very highly in psoriasis, in the form of ointment, about eighty grains to the ounce, and I have used it in this and other strengths, and also in alcohol and oil, with fairly good effect.[1]

Naphthol is not so active in its effect as chrysarobin or pyrogallic acid, but it is much more agreeable and is, I think, peculiarly well adapted for employment upon such parts as are exposed to the view, as the face and hands. Like pyrogallic acid, it must be used with caution over large surfaces, as absorption with toxic effects may be produced.

It remains to mention briefly two or three methods of application of these remedies which have recently been brought forward. The first of these is the treatment by medicated gelatine, which was introduced by Prof. Pick, the well-known dermatologist of Prague. My attention was first drawn to this by a pamphlet which Prof. Pick kindly sent me, in which he gave an account of his earlier experiments with medicated gelatines, but I have not as yet had an opportunity of testing this method of medication as I should desire. I may say, however, that the method does not seem to me calculated to prove convenient and popular in private practice. I had for some time been making some experiments in my service at the Polyclinic in the preparation of gelatines impregnated with chrysarobin and pyrogallic acid, but without much satisfaction, when Dr. Chas. L. Mitchell, the well-known pharmaceutist of this city, sent me some excellent preparations of his own, which seem to be perfectly adapted to the purpose for which they are intended. A bit of one of these gelatine sticks is cut off and placed in a water-bath, where it soon melts into a clear homogeneous fluid, which may then be applied to the lesions of the skin by means of a paint-brush. The advantages claimed are cleanliness and transparency. The coating of gelatine does not rub off on the clothes, and is therefore not so dirty as an unctuous application. A fresh coating can be painted on every day or two as the old layer wears off. The chief disadvantage of this method of treatment is that it requires apparatus which is not convenient to carry about, nor can the patient be trusted to employ it at his discretion. My own experience is that in psoriasis, at least, the gelatine applications are not active enough. I have not, however, used them with sufficient frequency to pronounce a positive opinion.

Recently a solution of chrysarobin in collodion has been recommended in the treatment of psoriasis by Dr. George H. Fox, of New York, and several dermatologists have confirmed his statements with regard to its efficacy. I have employed this preparation in one or two instances, but it has seemed to me so much less active than the chrysarobin ointment that I have not been encouraged to continue its use. It has one great advantage over the gelatine applications, however, and that is that it can be applied extemporaneously, and without the paraphernalia which must accompany the use of the gelatine.

A few weeks since a pamphlet by Prof. Auspitz, of Vienna, reached me, in which that distinguished dermatologist recommended liquor gutta-percha as a vehicle for the application of chrysarobin. I at once obtained a ten per cent. solution, or rather emulsion, of chrysarobin in liquor gutta-percha, and happening to have a case of psoriasis of the face and scalp under treatment, I gave some to the patient to apply once daily. The effect was so happy as to encourage me very much to hope that we have in this preparation the most convenient method of applying chrysarobin yet devised; and as chrysarobin is, after all, the most efficient local agent in the treatment of psoriasis yet brought forward, I have no hesitation in urging the trial of this preparation on any one who may have a case of psoriasis under treatment. It is to be noted, however, that the same watch must be kept upon the skin for fear of exciting dermatitis as when the ointment is used. Only when the liquor gutta-percha dries, which it does very quickly, there is little or no danger of rubbing the chrysarobin over the good skin, nor is there much danger, if any, of staining the clothing.

[1] In a communication read before the American Dermatological Association, last month, and published in the *American Journal of the Medical Sciences* for October, I have given the results of my experience in the use of naphthol in various diseases of the skin, psoriasis among the number. I may refer to that paper for further details as to the action of the drug in this disease.

BLOOD-LETTING.

BY GEORGE HAMILTON, PHILADELPHIA.

In the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION for September 22d, is an article entitled "Good Remedies out of Fashion," by Dr. C. T.

Hare, President of the Metropolitan Counties Branch of the British Medical Association, in relation to emetics and blood-letting.

In regard to the utility of emetics in the cases adduced there are probably very many who coincide with the opinions of Dr. Hare, while, in reference to the propriety of bleeding in the congestive conditions alluded to, and others of a similar nature, a vast majority of practitioners, including nearly all the younger, would, perhaps, withhold their assent. The signs of the times, however, seem to indicate that a beneficial change of opinion upon this subject is about to occur; and the writer cannot but express his gratification that another distinguished authority has added his testimony in favor of a practice that, abused as it may have been in past years, is likely to assume its true position as an not only useful, but indispensable therapeutic measure in the cases to which Dr. Hare has referred. The earnest, impressive injunction of Dr. H. is that the physician, in the dangerous conditions he refers to, will not lose time in the employ of means wholly inadequate to the emergency, but at once resort to that one measure which, in the practice of the most experienced physicians, has been proven to be more successful than all other agencies combined.

Following the example of Dr. Hare, a case in illustration will now be given. A man of 22 years, unusually muscular and strong, after a few hours of chilliness was seized with a most violent and protracted chill, and in a very short time great oppression and stricture of the chest, with extreme difficulty of breathing, ensued. Early the next morning the patient came under my care. He lay upon his back, gasping for breath to such a degree that, if the motion of a fan was suspended for a moment, he would, with difficulty, exclaim, "Fan, or I will suffocate!" Face pallid, tips of the ears and nose cold, the hands, feet and legs in the same condition, the nails livid, the pulse very feeble and frequent. Inexperienced and alarmed, Dr. Thomas F. Hewson, my preceptor, was called to the patient, and at once directed me to bleed; but, for several minutes, a few drops only of dark blood could be had; yet by placing the hand in hot water the blood began to flow, and soon changed to a more natural color; the pulse increased in strength and became slower, the pallor and anxious expression of the face were less marked, and the patient said he felt easier. The usual warm applications and a stimulating liniment were applied to the feet, and moderate portions of carb. ammonia and wine were prescribed. The abstraction, however, of the carbonized blood had already produced reaction, and no matter how violent this reaction, or subsequent inflammation might be, this condition would be infinitely preferable to the profound passive congestion that oppressed the heart and lungs, paralyzed the action of the brain and entire nervous system, and thus, momentarily, endangered the life of the patient. Dr Hewson, promising to return in the evening, said that this was by far the most strongly marked case of approaching pneumonia that he had ever seen; and now, strangely enough, after more than a fifty years experience, no such case has occurred in the practice of the writer. At the evening visit the whole aspect was changed; reaction was fully established, the pulse excited, gasping greatly diminished, expression of face less anxious. As the oppression of the chest, and now, for the first time, some degree of pain was complained of, Dr. Hewson, anticipating a severe attack of inflammation, directed the vein to be reopened, from which florid blood bounded out as if from the vein of a man in robust health. The subsequent march of the disease, contrary to what had been feared, was not as severe as some others coming under my notice. To bleed under the condition just stated would perhaps not be thought of by an immense majority of physicians, but would probably be derided or ridiculed; but neither derision nor ridicule can successfully confront irrefutable facts. But some may say in objection: Is it not a fact that the case adduced is, by your own admission and that of Dr. Hewson, exceptionally rare, and therefore of little practical importance? In answer, it must be admitted that cases of such violence are seldom met with, but many others, endangering life in a lesser degree, do occur, not only in pneumonia, but in several other diseases, sometimes ushering in the attack, oftener in the latter stage. In the destructive epidemics that ravaged Europe several centuries ago, the deaths would often occur so quickly that it was impossible to refer many of them to the violence of fever or inflammation; whilst the opposite condition, profound venous congestion, stifling, as it were, vitality at the fountain head, would readily explain the fearfully sudden mortality. Again, in the cholera of 1832, many of the slaves in Louisiana suddenly fell victims to the malignant nature of the disease, without the occurrence of vomiting or purging. In malignant intermittent, not very often seen in this country, death may occur so soon after invasion that no rational cause can be given other than that of profound congestion.

Physicians in this section of the country are, fortunately, not often called to cases of this character, but when they do occur the course to pursue is that so emphatically commended by Dr. Hare. In this connection the writer may state that nearly all who, for a few years past, have adopted and written upon this mode of practice, are found to occupy distinguished positions as practitioners, authors or lecturers. In a physiological and pathological point of view the cases in illustration, by Dr. Hare, perhaps more decidedly the case of the young man attacked with pneumonia, are of extreme importance. In disease, the greater the divergence from the normal physiological state, the more distinct, impressive and instructive is the pathological condition; and when, as in an ordinary case of pneumonia, where inflammation and fever may be violent, the contrast between this and the congestive abnormal is still more marked and instructive. The normal action of the brain, spinal marrow and nervous system depends, entirely, upon the stimulus of oxygenated, vitalized blood; and the physician who abstains from the abstraction of carbolized, in fact poisonous blood, must do so in ignorance of the real nature of the case, or from dread of the wide-spread sentiment in opposition to bleeding,

both in and out of the profession. Another class of cases of congestion is frequently seen, of an entirely different character, and occur under very different conditions. They are generally noticed in the latter stages of disease, in fever, inflammation, or in chronic affections; and whilst they may exhibit no startling signs of immediate danger, they are, doubtless, the final cause of more deaths than occur in the former class. As a rule, and by common consent, bleeding is totally inadmissible in these cases, unless done in the first stage of the disease, and the strength of the patient yet is unbroken.

It was not the purpose, nor is it within the scope of this paper to enter upon the subject of bloodletting in ordinary inflammation, and especially in pneumonia. The difference, or rather the antagonism, of opinion in regard to the treatment of this disease, and the conflicting statistical reports of success, based upon the use or neglect of the lancet, may not be regarded as complimentary to the profession. Inflammation and its attendant fever does not occur without a cause, a noxious agent; and hence, such inflammation and fever must be regarded, in tendency, at least, as conservative; and so long as inflammation does not become so violent as to threaten the integrity of tissue, and organs essential to life, there would appear to be no necessity for the abstraction of blood; whilst in cases of great intensity, unless reasons of special, imperative character forbid, blood should be taken at the earliest moment, and to such extent as the constitution and existing conditions will admit. The danger so often spoken of in opposition to bleeding sinks into insignificance compared with that resulting from intense, unrestrained inflammatory action. The ability of the constitution to bear great loss of blood is exemplified in the fearful condition to which women in abortion, or post-partum, are at times reduced, and from which they often recover with marvelous rapidity.

CATHETER BROKEN OFF IN PROSTATIC PORTION OF URETHRA--EXPEDITIOUS REMOVAL.

BY ARTHUR L. WORDEN, M.D., DES MOINES, IOWA.

I notice, in your issue for Sept. 15, the paper of Dr. Hard, in which he recommends a sharp, screw-pointed instrument for removing broken catheters from the urethra. This cut represents an instrument which once helped me out of such a difficulty without the patient even knowing what had happened.

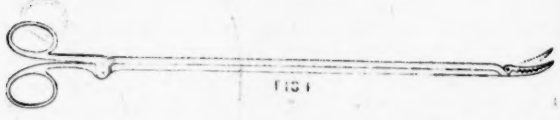

FIG 1

I had occasion to pass a soft rubber catheter, No. 11, into the bladder of a colored man. After drawing his urine and attempting to withdraw the catheter, imagine my dismay at having it break off in the prostatic region. Without mentioning the fact, I immediately passed the urethral forceps, and easily securing a grasp upon the broken end, at once withdrew the fragment entire.

On another occasion, I was unfortunate enough to have a pledget of absorbent cotton slip off my applicator and remain in the cavity of the uterus. Again my alligator urethral forceps came to my rescue, and I removed the foreign body without difficulty. The blunt end renders it as easy to introduce as an ordinary silver catheter. The cut represents the mechanism by which the greater part of the instrument works by a sliding motion, which in turn opens and closes the short alligator blades. With this instrument a firmer hold may be secured, and the fragment is not so liable to break. The compound silver catheters sometimes break off, and may be easily removed by the forceps—whereas the screw would be entirely useless. The greater safety of the former is obvious.

MEDICAL PROGRESS.

THE ACTION OF THE CONSTANT CURRENT IN ELECTRICITY APPLIED TO THE BRAIN ESPECIALLY AS CONCERNS THE EYE.—Dr. Gillet de Grandmont in the Recueil d' Ophthalmologie (August) after a series of experimental researches, reviews this subject at considerable length. In using this means for the relief of eye affections, he places the negative pole on the forehead near the termination of one of the branches of the tri-facial nerve, while the positive pole is placed near the superior conical ganglion of the sympathetic. The impression produced shows itself in various ways, viz., by flashes of light which are indicative of an irritation of the optic nerve and a corresponding disturbance of the retinal elements, and serves as a means of diagnosis to determine the degree of alteration of the retina. When, for example, an amaurotic does not see the brilliant blue light, but a feeble yellow glimmer, the prognosis would be far from favorable. The metallic taste in the mouth is not so easy of explanation, it has been supposed to be the result of a dialytic action upon the saliva; the iron taste has been supposed to be due to the decomposition of the elements of the blood containing iron, but this does not explain the copper taste. It is evidently due to a direct excitation of the lingual and glosso-pharyngeal nerves. The buzzing is due to an excitation of the auditory nerve. The dizziness is the result of a congestion of the encephalic centers. This appears only when the current is very strong, or when it is prolonged, and is very objectionable. Another objection to these strong and prolonged currents is the cicatrices which result on the forehead and neck from the destruction of tissue. The lowering of temperature which is shown on the use of a moderately strong current of electricity of short duration seems to negative the foregoing statement of congestion of the encephalic centers by a strong and long continued current; but this is explained by the action on the sympathetic and consequently upon the vaso-motor nerves. A current of feeble intensity stimulates the vaso-motors to the contraction of the vessels and lowers the temperature. A current of greater intensity or long continued exhausts and overcomes the excitability of the vaso-motors, and there is a vascular relaxation which admits of turgid-

ity and distension, congestion and sometimes even rupture of the vessels. An electrolysis also takes place in the aqueous humor, possibly also in the vitreous humor and in the crystalline lens, similar to that shown in the decomposition of water, when oxygen passes to the positive and hydrogen to the negative pole. This accounts for the direct diminution in amount of the aqueous humor, diminution in mass of the vitreous humor, and alterations in the crystalline lens, the latter being deprived of a portion of its water and showing a segmentation bordered by opaque lines.

The conclusions drawn are in effect that contiuous currents applied to the more profound affections of the eye are of great use in therapeutics; that they act upon the circulation of the ocular globe, and that they act powerfully upon the secretions of the humors of the eye. They are useful wherever it is desirable to influence the retino-choroid circulation, to stimulate the nervous excitability of the retina, or to modify the secretion of the vitreous body. That is to say that atrophy of the optic nerve, glaucoma and chronic irido-choroiditis can be so relieved. As regards the strength of the current the greatest benefit was obtained from using 4,6 or 8 Lechanché's,elements of medium size. Whenever a larger number of elements were employed cerebral disturbance always followed without a corresponding benefit in the affection itself. A descending electric current applied for from four to five minutes once on twice a week, sufficed to give satisfactory relief. Strong or long continued currents are useless and dangerous in producing indelible cicatrices and in producing congestions of the brain. Dr. Gillet de Grandmont has never been able to obtain any important modification by this means in confirmed cataract.

Every Patient His Own Case-Book. — Dr. Howard A. Kelly tells us, in the *Medical News* for October 13th, that he has for more than sixteen months, while a resident in the Episcopal Hospital, been in the habit of mapping out on the superficiaries of the body, in an indelible aniline color, the results of a physical exploration of the condition beneath. The markings remain fresh and clear from one to several weeks or longer, profuse sweating being the only symptom that is apt to obliterate them. He uses abbreviations to designate certain physical signs, the day and month being also recorded. The markings are made so prominent as to be legible over the largest of our clinical amphitheaters. This suggestion by Dr. Kelly may be enlarged upon to a very considerable extent. The clinical professor, it is true, would not have the opportunity of showing how a close and careful diagnosis is made, but he would be able to show a much greater variety of cases and have all his patients arranged like diagrams around him. In fever patients the daily record of the thermometer could be placed with the date on the borders of the axillary space, on the nates, or elsewhere, according to the mode of using it; what might be better still for this purpose, lines might be drawn in these situations to give the variations in the curve from date to date. Then in skin diseases, isolated points might be ornamented by recurring areola of boundaries and dates to indicate progress from papular to vesicular, pustular, maturative, etc., etc. Many a poor fellow would like to have a boundary to his phagedenic chancre to know if the thing is still spreading, or if it has begun to yield to treatment. Finally, it would give food and thought to the mind of the patient himself, too often left to its own resources. We hope these comments upon Dr. Kelly's suggestion will not be received amiss, as really he has given us what may be of great value within certain limits; but at the same time it does provoke one to thoughts irrelevant.

Ten Cases of Poisoning by Canned Meat. — The *Archives de Médecine de Pharmacie Militaires* for August 15th gives the report of the surgeon accompanying a company of a French regiment on the march in the East, where ten boxes of conserve of bouillie beef were opened for distribution, each box being served to ten men, making each man's ration one hundred grammes of the viand. The corporal in charge of the distribution found that in one of the boxes, while there was no bad odor, in place of the firm jelly overlying the meat, there was a white, slightly viscous fluid, as if the jelly had liquefied. This he threw away, only giving the meat itself. One hour after the meal the ten men who partook of it were all taken ill with nausea, alimentary and bilious vomiting, vertigo, violent colics followed by diarrhœa, the stools being fœtid and spumous, marked cramps in the thighs and legs, lasting four or five minutes, making all movement very painful. These patients were transferred to a hospital suffering from intense frontal headache with a sensation of throbbing at the temples. No heat of skin or febrile movement, pulse weak and slow but regular, respiration normal, abdomen slightly sensitive to pressure; urine scanty, cloudy, loaded with urates, but neither sugar nor albumen. The following day the symptoms were much less marked, cephalagia and want of appetite remaining, more of the patients were able to get up and walk about, the third day the symptoms had all disappeared and the fourth day they all reported for duty.

These men had eaten only of the canned meat and their usual bread ration; they had drank coffee, no alcohol, and water of a good quality; none of their comrades had suffered in any way. The preparation of the canned meats had been recent—June, 1881—and the date of poisoning was January 13, 1882, not more than seven months. The ten boxes or cans were carefully examined: one of them had a peculiar and decided fishy odor, like sardines in oil, while all the others gave the healthy odor of meat fat. This can was recognized by the corporal as having contained the offending substance. There remained a little of the jelly and meat at the bottom of the can; the jelly had a sharp, disagreeable taste; the meat though insipid was eatable. The can itself showed nothing out of the way — no fissure, the solderings were intact, and the interior showed the brilliant metallic lustre of tin. There was a careful analysis made of both the jelly and meat, but it revealed nothing. The microscope was not used. The

report made was to the effect that these preparations could undergo a change which, without modifying either the appearance, color or taste of the viand, would endow it with toxic properties; and the only sign existing was the fishy odor on the sides of the can, the simple liquefaction of the fat not being indicative of any change in the viand itself.

ON THE USE OF SALICYLIC ACID IN PRESERVING ALIMENTARY SUBSTANCES.—Prof. Bronardel (*Annales D'Hygiene Publique*, Sept.) has made a report on this subject in which he has embodied some very useful information. In 1880 the Consulting Committee of Public Hygiene in Paris concluded that salicylic acid was a dangerous substance, the sale of which should be submitted to the same laws as govern the sale of other dangerous substances, and that its use in preserving alimentary substances required toxic doses to make it available; therefore, the sale of such preparations should be interdicted. These conclusions were adopted by the Minister of Agriculture and Commerce, who accordingly issued a circular interdicting the use of salicylic acid in this way. His circular called forth so many protests, and gave rise to so much discussion, that the subject was again referred to this committe, resulting in this report of Prof. Bronardel.

The role and the mode of action of salicylic acid and of its salts in the animal economy is very little known. We who, as physicians, prescribe it daily, recognize its good effects in certain diseases, but we are incapable for establishing a theory for its action. We know that once introduced into the system it is eliminated by the liver and by the kidneys. The most partisans of this agent all recognize that diseases of these organs contra-indicate absolutely its administration. All have cited examples of sometimes mortal accidents, where the liver or the kidneys have failed to perform their duty as emunctories. In such cases the salicylic acid, not being eliminated, or being eliminated imperfectly, has accumulated in the system, and the dose prescribed each day has been added to its fellows. The elimination differs with the age; it is rapid in infancy and adolescence, slow in old age. Dr. Chauvet has shown that in the old people the elimination of a single dose of 4 grammes is not complete earlier than six days after its ingestion. Even when elimination is normal, the salicylic acid does not pass through the system without undergoing some transformation; we find salicylic and salicyluric acid in the urine. According to the researches of Feser and of Friedberger we find in the urine only 63 per cent. of the salicylic administered to dogs, and none in the feces. Prof. Bronardel administered 20 centigrammes of salicylate of soda dissolved in table wine at meal time for twelve days to three persons in good health, one aged 68 years, the second 46 years, and the third 23 years of age, all three being submitted to the same alimentation. With the two younger, the perchloride of iron did not detect salicylic or salicyluric acid in the urine. With the eldest, the violet color appeared slightly on the fourth day, then increased, and was quite intense for four days after the use of the drug had been stopped, and did not completely disappear until the seventh day.

So, administered even in small doses (20 centigrammes per day), the salicylate of soda does not undergo the same transformation in all persons, and in many it remains in the system for an indefinite period; which variation renders it impossible to indicate, even for persons in health, a minimum dose.

Many persons are exposed to serious danger by the daily use of salicylic acid or of its salts even in relatively small doses. These are cases where there is no elimination, or where the elimination is incomplete; from senile alteration of the kidneys, or from nephritis with albuminuria. Hospital records show that the frequency of albuminuria has more than doubled during the last twenty years. It is true that many cases of albuminuria are relieved, as in pregnancy where the presence of albumen is but temporary, and men have lived for fifteen years and longer after albuminuria has been detected as a prominent symptom. In view of these facts, Prof. Bronardel advised a maintenance of the laws prohibiting the use of salicylic acid or its compounds in the prevention of alimentary substances.

EXTRACTION OF A POMMADE POT INTRODUCED INTO THE RECTUM.—M. Maurice Pollosom (*Syon Medical*, Sept. 16), extracted a vessel of this description from the rectum of a man aged 72 years, who said he introduced it for the purpose of relieving pain in that region by pressure, and that it passed up and beyond his control. It had been in place for fifteen days; he had received medical advice but no examination had been made, and medicines had been given by the mouth; fecal matter passed in liquid form around the vessel. The borders of the vessel could be readily felt with the fingers and traction made upon them, facilitated by a depression about a centimeter in length upon the border of the vessel, but rendered difficult from the fact that a piece had been broken off before its itroduction. The sphincter also was very dilatable, indicating that this was not the first introduction of a foreign body. The muscular contractions of the rectum were very powerful and offered serious resistance, and the mucous membrane bordering on the rim of the vessel when pressed aside in one place doubled over the rim in another. Two pairs of forceps were applied at the broken portion, and while the mucous membrane was pushed away from the rim, traction was made and the vessel extracted. Slight hæmorrhage ensued but there was very little tearing of the mucous membrane. A large ball of fecal matter followed the extraction. The foreign body was an old glass pommade pot, cylinderical, six centimeters in length with a diameter of 47 millimeters, channeled externally; the broken portion represented one-fifth of the circumference. At eight millimeters of this circumference there was a circular projection of two milimeters which was very favorable for traction, and the projection was broken for one centimeter of its length. The patient was immediately relieved and left the hospital in thirty-six hours.

ON THE ACTION OF FREE HYDROCHLORIC ACID IN STOMACH DIGESTION.—Dr. N. Vogt has an interesting review of this subject in *Le Progrès Médical*,

September 15. As German writers of recent date have considered the absence of this as a free acid of great importance in semiology, Dr. Von den Velden by means of Kussmaul's pump obtained a certain quantity of matters contained in the stomach during digestion, and submitted them to the different reageants in order to detect the free hydrochloric acid. He obtained in tropéoline a substance of yellow color, which became red in the presence of mineral acids—organic acids not affecting it. In a case of typhus (?) he observed the disappearance of the free hydrochloric acid throughout the disease to return during convalescence. In simple dilatation of the stomach it was never wanting. In carcinoma it could not be detected. This could not be attributed to simple debility, because patients who, without carcinoma, had arrived at the last stages of marasmus still preserved the hydrochloric acid. It could not be the result of chemical action on the part of the cancerous secretions, because the light cases which were observed were cases of scirrhus and not ulcerated. In one case Dr. Von den Velden diagnosticated carcinoma in the absence of all other symptoms, which diagnosis was confirmed by the autopsy. In another case where all the symptoms of a neoplasm were present, the presence of the hydrochloric acid indicated that it was not carcinoma, and the autopsy confirmed his opinion. In one case where the liver was affected and the stomach healthy the acid was present.

In his researches he determined that the saliva which had passed into the stomach mingled with the food, did not act upon starch when free hydrochloric acid was present, and that this acid did not make its appearance for one and a half to two hours after the ingestion of food, thus confirming Lehmann's experiments. Consequently, he distinguishes two periods in stomach digestion: the first where the saliva continues to exert its influence over the starchy substances, and the second coincident with the appearance of free hydrochloric acid when the peptones are found in quantity.

These views have been combated with vigor. Ewald affirmed that the action of the reagent was masked by the presence of the albuminates of blood, etc.; that in a number of cases of carcinoma, the reaction of the hydrochloric acid was present; that the two periods of stomach digestion did not exist, and that the diastasis was simply diminished and not suppressed when the gastric juice became acid.

Von den Velden replied that the chemical agents of Ewald were not pure; that he did not admit a specific action to carcinoma, but he wished to discover in what special cases there was an absence of the acid.

Dr. Edinger confirmed the disappearance of the acid in two cases of amyloid degeneration of the mucous membrane of the stomach, and was inclined to consider it as due to an obliterating endartentis of the mucous arterioles. In his experiments he substituted for the Kussmaul pump, a modification of the old process of Reamur—by enclosing a bit of sponge the size of a nut in a gelatine capsule, suspending it by a thread, to be swallowed by the patient. In 30 minutes the capsule having been digested, the sponge was drawn out and the juice expressed from it and examined.

Dr. Uffelmann prefers the violet of methyl as the reagent to determine the presence of the hydrochloric acid. Dr. Edinger criticises this and prefers tropéoline. Sassesky has found, in nine cases of fever, that the hydrochloric acid disappears when the fever is accompanied with dyspepsia.

Dr. Vogt, in concluding his article, recommends a series of researches of this character to be conducted in hospital service.

Intestinal Occlusion due to a Biliary Calculus Wedged into the Rectum. (*Le Progrés Medical*, September 15).—This occurred in a woman 50 years of age, admitted to the service of M. Vulpian, at the Hotel Dieu. She died six hours after admission, the clinical history being very incomplete. There was great debility, feebleness of mental powers, facies expressive of suffering, temperature normal, pulse small and lowered, abdomen tympanitic, very much distended, the intestinal folds impressed on the abdominal walls, and pain on pressure of the abdomen. Marked dyspnæa and the patient declared that for four days the bowels had not been moved and very little urine had been passed. Catheterism found the bladder empty. On post-mortem examination all the intestinal folds were found to be distended, the distension extending to the superior portion of the rectum. At the junction of the superior and middle portion of the rectum a regularly shaped hard body was felt through the walls of the intestine, which was so wedged in as not to be moveable. On opening the rectum this was found to be imprisoned by the intestinal mucous membrane, which was tumorfied, but not ulcerated. The body was cylindrical in shape, 2½ centimeters in diameter and 1½ centimeters in height; it was composed of cholesterine. The whole of the large intestine was filled with fecal matter and two little calculi of cholesterine were also found. The gall bladder adhered to the transverse colon, where there was a very large ulceration putting the two cavities into direct communication. The ductus communis choledochus was little larger than normal, but contained no calculi.

The Ether Habit.—Under the title of "Etheromane," Dr. Sedan (*Gaz. des Hopitaux*, Sept. 15) gives some general references to the case of a young man, who, from the text, must have been nineteen years old when the observations were recorded, and who was for nine years in the habit of taking daily between 100 and 1,000 grammes of ether. When first seen by Dr. Sedan he was ten years of age—anæmia with a souffle accompanying the first sound of the heart, preserving nevertheless a very satisfactory general condition. He became one of the most promising students of the Lyceum, of a quick and brilliant intelligence, laborious and working with success. He confided to Dr. Sedan that he drank ether and that was the secret of his success—reasoned like a man and promised not to use the stimulant ex-

cept to assist the efforts of his intelligence. From that time he commenced increasing amounts of ether 20 to 30, 50, 80, 100 grammes a day, and as much at night in vapor, not drinking, not eating and leaving his ether intoxication to work out the most difficult questions in the higher mathematics. Getting up at night to obtain ether from pharmacies and imploring his parents to obtain it for him, medical advice failed to break up the habit. He consumed 900 grammes in one day, for the most part by the mouth. He has been said to have taken as much as one liter. And so this puny youth with a very feeble constitution indulged himself to this extent without any immediate disturbance, dying of mitral insufficiency which had developed itself gradually during a considerable period of time. During the last year of his life he used both ether and morphia subcutaneously.

THE CONSUMPTION OF HORSEFLESH IN FRANCE.—The municipal statistics of the city of Paris show that in 1881 the Parisians consumed 9,300 horses, and 400 asses or mules, which amounts to about 2,000,000 kilogrammes of meat. This animal is essentially herbinorous, and no noxious element is elaborated in its animal economy; whilst its organic resistance to disease is such that out of 3,000 horses which were cut up, M. Pierre, a well-known veterinary surgeon, did not find one in which the viscera showed any trace of morbid lesions. Like veal and young beef, the flesh of a young horse is white, and its nutritious qualities are in direct relation with the age of the animal which furnishes it; but when the colt is three years old, its meat, already deep colored, is very nourishing. When the horse has attained full age its flesh contains, in a maximum quantity, all the nutritive principles which are necessary. Liebig and Moleschott have pointed out that horseflesh contains more creative—that is to say, more albuminous matter—than oxbeef, which makes it largely nourishing. It has, in fact, been demonstrated that four kilogrammes of horseflesh are as nourishing as five kilogrammes of beef. The color is not displeasing, nor is the smell unpleasant; and its use in the treatment of diseases for which raw meat has been recommended, does not present the inconveniences which are often met with in the raw flesh of beef or mutton; in fact, every day large numbers of oxen, cows and sheep are killed which are known to be diseased, and of which it is feared to lose the sale. This can never be the case with regard to the horse, for most horses used for food are sent to the slaughter-house simply because they have become old or incapable of working, or because some accident has disabled them. —*British Med. Journal*, Sept. 15.

METHOD OF RELIEVING THE IRRITATION CAUSED BY CONTACT OF THE EYELASHES WITH THE EYEBALL IN SIMPLE OR SENILE ENTROPION.—Dr. Charles Bell Taylor has a wood-cut in the *Lancet* of September 29, illustrating a steel clip which seizes the eyelid in such a manner as to at once relieve inversion, and he affirms by wearing the instrument a short time the patients are frequently cured.

SYMPTOMS OF CHRONIC CEREBRAL HYPERÆMIA PRODUCED BY A FOREIGN BODY IN THE AUDITORY CANAL.—Dr. Pasquier, in the *Bulletin Médical du Nord.* (August), describes the case of a peasant woman 50 years of age, robust, free from previous disease, still menstruating, but not as regularly as previously, who complained of habitual pain in the head increased by noise, heat or bright light, making all work painful. It was accompanied by painful pulsations in the forehead. There was insomnia, and sleep troubled by fatiguing dreams; also a ringing in the ears; but the most troublesome symptom was vertigo, sometimes so intense as not to allow her to stand up, and accompanied with nausea and almost complete loss of consciousness. She felt this for the first time, she said, one day when an insect entered her ear, six weeks before. She thought the sharp pain experienced at the moment might have been the cause of the trouble, but the insect did not actually get into the ear; immediately after the accident a wing was taken out and the rest followed. Audition was good.

The physician who had attended the patient, treated her for cerebral congestion with mustard footbaths, repeated purgatives and blisters, without benefit.

The auditory canal showed nothing abnormal. The anterior portion of the tympanum had undergone no appreciable modification, but back of the handle of the malleus, directly parallel with it and descending to the postero-inferior quarter of the tympanum, was a grayish, elongated body, presenting bright facets. It seemed to be directly attached to the membrane of the tympanum. The handle of the malleus and the neighboring tympannic membrane were also markedly vascular. Dr. Pasquier took this to be the elytra of an insect and tried to extract it by injections of warm water without avail; introducing the speculum anew, he found, at the bottom of the auditory canal a slender prolongation of a shaggy appearance which he took to be a part of a leg of the supposed insect; removing it with the forceps he found it to be an oat-grain, still covered in part by its numerous membraneous envelopes. The symptoms detailed completely disappeared on the extraction of the oat-grain.

BARNEY, JOHN W., M.D., was born in St. Johnsburg, Vermont, January 19, 1816, and was educated at the Caledonia Grammar School. He then read medicine, graduating at Woodstock, Vermont, in 1841. Afterwards, as this college was discontinued about 1860, he received an honorary degree from Dartmouth Medical College in 1873. He located in Lancaster, N. H., where he was in active practice until 1870, when he removed to Concord, remaining there until his death, March 4, 1883.

He was a member of the New Hampshire Medical Society, also a member and an ex-president of the White Mountain Medical Association, from which he was a delegate to and became a member of the American Medical Association in 1865.

G. P. CONN, M.D.

THE
Journal of American Medical Association.
PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, NOVEMBER 10, 1883.

THE PEDICLE IN OVARIOTOMY.

Only a few years ago the operation of ovariotomy by abdominal section was considered one of the most difficult and hazardous of the capital operations. Except in the hands of a few experienced operators the mortality was so great that many were reluctant to admit the operation to the field of practical and legitimate surgery. Now, however, ovariotomy has been so greatly simplified and improved that it is one of the most satisfactory in results of all the more important surgical procedures. While the great change which has been wrought in the status and application of this operation is in great part due to those improvements which have so extended the field of abdominal surgery generally, much is attributable so the improved method of treating the pedicle. It is on this feature of the operation—the treatment of the pedicle—that such diversity of opinion and practice has been current, and to which we will direct attention.

When McDowell performed the first ovariotomy in 1809, he secured the pedicle by a ligature, and drew the ends through the lower part of the abdominal incision, leaving them outside in closing the wound. When Dr. Nathan Smith operated in 1821, the vessels of the pedicle were ligatured, the ligatures severed close to the knots, the pedicle returned to the abdominal cavity, and the wound closed completely. At a more recent date the ecraseur, the actual cautery and the galvano-cautery were used for dividing the pedicle; and the intra-peritoneal method was followed until Mr. Hutchinson, of London, introduced the clamp. By means of this instrument the pedicle was brought out between the lips of the abdominal incision and became extra-peritoneal. This method was at once adopted by Wells in England, and Atlee in America, and has been the popular and most generally accepted method. While Clay, of Manchester, and several well-known German operators adhered to the intra-peritoneal method, the clamp became famous in consequence of the brilliant results of Wells, Atlee and others. In the meantime torsion and Miner's method of enucleation were applied in the treatment of the pedicle, the latter being applicable only to special cases. With the advances steadily made in the various details of the operation by the able workers to whom it was entrusted, the mortality was reduced year by year. Among the noteworthy improvements should be mentioned the influence of the Listerian method of treating wounds upon the success of the operation. The greatest interest, however, continued to center upon the management of the pedicle. It was urged by Mr. Spencer Wells that the pedicle when ligatured and dropped into the abdominal cavity would slough off, thereby leading to a fatal result. In his work on Ovarian Tumors he gave conspicuous place to a fatal case in which an examination revealed the distal portion of the stump attached to a coil of intestine and lying in a pool of pus. The intra-peritoneal method had an able advocate in Dr. Tyler Smith, in England, and a brilliant exponent in Dr. Keith, of Scotland. In America the clamp was adopted very generally. In 1868, Spiegelberg and Waldeyer, of Breslau, made experimental investigations upon the changes which occur in the stump of the pedicle after its ligation and return to the peritoneal cavity.

By these experiments it was shown that the distal end of the stump does not die, but its vitality is maintained through its connecting band underneath the ligature until the sulcus made by the ligature is bridged over with lymph, and vascular connection permanently established. In 1872, Dr. Bantock, of London, exhibited to the Obstetrical Society the stump of an ovarian tumor from a patient who died from cancer one year after double ovariotomy had been performed upon her. On examination the hempen ligature was found to have been almost completely absorbed, the knot only remaining as a hard body about the size of a hemp seed and covered. In a paper recently read before the American Surgical Association, by Dr. J. Ewing Mears and Morris Longstreth, of Philadelphia, the results of extensive experiments upon the lower animals relative to the intra-peritoneal treatment of the pedicle were given.

These experiments cover the essential points observed by Spiegelberg and Waldeyer, and demonstrate some important facts bearing upon the choice of material for ligature. This subject is at the present time under investigation in the hands of Drs. Mears and Longstreth, and additional observations will be reported.

After Dr. Keith, the intra-peritoneal has doubtless been advanced in popularity most by Mr. Lawson Tait, of Birmingham, who has won the highest distinction by his skill in this department of surgery. Adopting almost exclusively the intra-peritoneal method of the ligature cut short, his results are shown in a published table of 101 consecutive cases of ovariotomy with three deaths. Mr. Wells, we believe, still adheres to the clamp, but in America the intra-peritoneal method has been very generally adopted, and the improved results show this to be one of the greatest advances in abdominal surgery. By the clamp the pedicle is drawn out of the wound and exposed to suppurating inflammation. It has been shown that pus is conducted along the pedicle into the abdomen, and thereby begets suppurative peritonitis. It seems that the prediction made some years since by our distinguished countryman, Dr. T. Addis Emmett, that the intra-peritoneal method with the ligature is destined to be the method of the future, is almost verified.

ETHICAL ADVERTISING.

DR. N. S. DAVIS:

Dear Doctor—I wrote you some days ago asking you to what extent and in what manner a physician might advertise himself under the Code of Ethics.

Your polite answer referring me to certain sections of the Code was duly received. In looking over the sections referred to I find that specialists are subject to the same rules as other members of the profession, and yet I find that in addition to the professional card of a physician, he may add thereto practice limited to diseases of such character as he may choose to designate; or he may say that he devotes certain hours of the day to certain specialties.

Now, does the Code say *to whom* a physician must hand such professional cards, or in what quantity or manner they may be distributed? Or, to be more explicit, does the Code intend to convey in letter or spirit that a doctor can print such a card and *circulate* it among the people for the purpose of increasing his business, or does it mean that he must scrupulously conceal the cards, and only now and then quietly and unobtrusively hand one to a brother doctor?

Furthermore, I would ask if a physician be allowed the privilege of printing and circulating such cards (and it is well known what cards are printed for) can not he, with equal right, print the same card on his letter-heads or put the same in medical journals, or for that matter, in the secular papers?

I am well aware of the fact that there is a clause in the Ordinances of the Code, which says, "*Resolved*, That private handbills addressed to members of the medical profession or by cards in medical journals calling the attention of professional brethren to themselves as specialists, be declared in violation of the Code of Ethics of the American Medical Association." And yet I can point you to-day to members of the American Medical Association who are guilty of this very thing, only in a different and modified form.

I refer you to a number of prominent men who are daily advertising in the various medical journals as *specialists* and calling the attention of their professional brethren to their facilities for treating special classes of diseases. In a journal now before me, I find a certain "Sanitarium" "for the treatment of nervous and mental diseases, and those addicted to opium and alcohol habit." It is further announced that "Years of experience, personal supervision, trained nurses and ample appliances, are the basis of our success." Two doctors sign their names to this "ad."

Following this advertisement comes that of another sanitarium, with about the same announcement, one physician being responsible for this.

Turning over, I come to another "Private treatment of" a certain class, by a well-known physician and a member of the American Medical Association. This gentleman announces himself as devoting special attention to a certain class of cases, and states that he has had years of experience.

It is needless for me to go on. Sanitariums, private homes, retreats, and every conceivable invention is used for the purpose of advertising, and this advertising is done for the purpose of influencing patients into the hands of physicians who are doing this advertising. I do not condemn it, on the contrary I want to do something of the same kind myself and for the same purpose.

I only submit these questions to you, my venerable and honored brother, for you to give me some light on the subject, and if such a course is proper and ethical in either of the several instances alluded to, depend upon it, I shall appear in due time as a vigorous advertiser. I can name my house a "private home," or a "sanitarium," and add in my proclivities and facilities for treating my specialties, and I will make money by the operation. By the way, please write me privately what you will run a two-inch card in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION one year for. Very sincerely yours,

C. A. BRYCE, M. D.

We copy the foregoing letter in the JOURNAL as designed by its author, and although the more important questions contained in it are as plainly answered in the editorial on the same subject in the 17th number of this journal as they can be, yet some further comments may not be unprofitable. First, the writer, in the beginning of his letter, fails to recognize the distinction between the provisions of the National Code of Ethics, and the reports and

resolutions adopted by the American Medical Association from time to time, relating to ethical subjects. Yet the distinction is an important one. The National Code proper was framed by a committee appointed by the same Primary National Convention of delegates from Medical Societies, Colleges, and other permanently organized medical institutions, that appointed another committee to prepare a constitution and by-laws for the formation of a permanent National Association. Both committees reported to the same adjourned Convention in which was gathered a more full representation of the several State and Local Medical Societies and colleges from all parts of the country. Both reports were adopted after full consideration, and the National Association created by the one, immediately adopted the other constituting the Code, and made its adoption by all other Societies one of the conditions of eligibility for membership in the National organization.

The Code of Ethics, therefore, possesses all the qualities of a fundamental or organic law created by national professional authority, and cannot be properly altered, amended, or added to, without such amendments or additions having been proposed in due form, and adequately published for at least one year before final action on them, and then such action could properly be taken only by a representative National organization; or, in other words, by the American Medical Association itself. But the resolutions concerning specialists reported by a committee and adopted by the Association in 1869, and the report of a committee on the propriety of a revision of the Code of Ethics adopted in 1874 are simply expressions of the views of the Association, and while they remain unrepealed may be regarded as authoritative interpretations or declarations, yet are subject to modification or repeal at any subsequent meeting by a majority vote.

And yet the language of the letter shows that its author, when he alludes to "certain sections of the Code," is actually referring to portions of the resolutions of 1869 and of the report of 1874, which were given in the leading editorial in the preceding number of THE JOURNAL. When he says: "I find that specialists are subject to the same rules as other members of the profession," he is referring to one of the resolutions adopted in 1869. When he adds, "Yet I find that, in addition to the professional card of a physician, he may add thereto, *practice limited to diseases of such character as he may choose*, or, he may say that he devotes certain hours of the day to certain specialties," he is referring to a part of the report adopted in 1874. But in this latter reference he commits an important mistake. There is nothing in the report alluded to which authorizes the physician to advertise by card or otherwise "that he devotes certain hours of the day to certain specialties." Neither does the Code of Ethics proper make any allusion to specialties or specialists in the sense in which those words are now used; and for the obvious reason that neither had any existence in this country when the Code was framed. It is plain, however, to every intelligent reader, that the national Code of Ethics recognizes no privileged or distinct classes in the profession, but that all regularly educated physicians enjoy the same privileges, and are under the same obligations to each other and to the community.

In regard to advertising, *all* are prohibited from issuing handbills, advertisements or private cards inviting the attention of those laboring under particular diseases. On the other hand, no one is prohibited from publishing or using a professional card as freely as he likes, simply announcing himself as a Doctor of Medicine, and giving his residence, office, and office hours. If, through ill health or other cause, he desires to limit his professional business to certain hours in the day, he can specify those hours on his card. Or if he desires to limit his practice to the treatment of any particular diseases, he can say on his card that "*his practice is limited*" to this or that class of diseases. For the reason that these are in the nature of self imposed restrictions, and not in any sense assumptions of special or superior professional attainments in certain directions. And if it should happen that some part of the community draw the inference that because Dr. A. limits his practice entirely to diseases of women, that he would be the more skillful in that particular direction, this possible advantage is balanced to his neighboring practitioners by his public notice that he attends to no other class of cases. But if a physician puts upon his card or advertisement that *certain hours* are devoted to some special class of diseases, or that he gives *special* attention to certain diseases, or that he is an oculist, gynæcologist, etc., he both asserts a superiority over the general practitioner in the special direction indicated on his card, and implies to the public that all well educated physicians are not prepared to do good work in the same direction; and yet he gives no assurance, either to the public or the profession, that he will not be ready to attend to any other class of diseases as readily as the general practitioner. In other words, he retains all the privileges of a general practitioner, while asserting for himself special or superior skill in the treatment of certain classes of diseases.

It is just this unfair assumption of superior attainments in certain departments of professional work, and the privilege of advertising it to the public without relinquishing any of the privileges of the general practitioner, that specialists have been contending for ever since specialism, so-called, has had a recognized existence. But the consideration of other questions in the letter of our Richmond correspondent must be delayed until our next issue.

SOCIETY PROCEEDINGS.

PROCEEDINGS OF THE SUFFOLK DISTRICT MEDICAL SOCIETY OF BOSTON, MASS., OCTOBER 10, 1883.

SECTION FOR CLINICAL MEDICINE, PATHOLOGY AND HYGIENE. ALBERT N. BLODGETT, M.D., SECRETARY.

Meeting called to order at 8 o'clock, Dr. G. B. Shattuck in the chair.

There being no pathological specimens for exhibition, the first businessof the meeting was the reading of a paper [1] on "The Neglect of Ear Symptoms in the Diagnosis of Diseases of the Nervous System," by Dr. G. L. Walton, of which an abstract follows:

The study of the ear symptoms in nervous diseases has not kept pace with the general advance in neurology during the past twenty years, although otological research itself occupies at present a front rank in scientific progress.

It is not to be expected that the general practitioner should gain a thorough knowledge of the ear, although it is unfortunate that he should neglect it altogether, as in the exanthemata, where a little knowledge of otology would sometimes prevent, for example, hyperæmia from becoming a purulent inflammation, causing not only deafness but more serious symptoms, by extension of the process. There is certainly no reason for leaving the ear entirely out of consideration in the diagnosis and scientific study of nervous diseases. The *eye* has been so carefully studied for some time among neurologists that the diagnosis of locomotor ataxia or cerebral tumor without ophthalmoscopic examination is the exception, and the symptom "blindness" without further explanation would be considered an absurdity. Although we can not assume that an equal amount of advantage is to be expected from the study of the ear, there is certainly much to be gained, and it should not be altogether neglected.

As an example of the practical value of adding otological to neurological study may be mentioned the recent investigations into hysterical deafness, which have shown that it has pathognomonic characteristics, the hearing through the bone disappearing first, then that for high tones. A knowledge of these characteristics is not only of value in diagnosticating the simple hysteria, but also medico-legally in examining the hysterical symptoms following railway and other injury, as recently pointed out especially by Dr. J. S. Putnam [2] and the reader. A case, has, however, been recently reported by [3] Landau and Remak, in which left sided hemiæsthesia of hysterical origin was accompanied by deafness on the opposite side. No examination of the ear was made and the hearing was only tested by the watch, and that only in the air, so that the right sided deafness may as well be attributed to middle ear disease, for example, as to hysteria, though no conclusions at all can be drawn from such incomplete evidence.

A systematic review of published cases in German, French, English and American journals show that while the eye is rarely, the ear is generally left out of consideration in diagnosticating cerebral disease. The cases in which the ear is neglected may be classed as follows: (1) Those in which no note whatever is taken of the condition of the hearing, although the presence or absence of deafness would be of diagnostic value; (2) cases in which deafness is mentioned as a symptom in nervous disease without sufficient examination to exclude disease of the ear itself. The first is by far the most numerous class and includes, perhaps, the large majority of cases of cerebral lesion, such as tumor, hæmorrhage and abscess, to say nothing of hysteria and allied disturbances. Why the auditory nerve should be left out in the otherwise systematic analysis of such cases is not clear. The presence or absence of deafness would be of importance, for example, in question of lesion in the pons or cerebellum. Seymour[3] has recently reported a case of cerebellar tumor pressing on the pons, in which deafness by air and bone added much to the certainty of the diagnosis afterward corroborated by autopsy. Although this case comes under the second class mentioned in that no examination of the ears was made, the probabilities were in favor of the tumor as the ætiological factor, and the case is quoted because Nothnagel in his text book on diagnosis of cerebral diseases states that no case of deafness is on record resulting from cerebellar disease. The same writer states that the auditory nerve is not often affected by tumors and hæmorrhages of the pons, basing this opinion on the fact that deafness is rarely mentioned in reports of such cases. He says himself that the fact is remarkable considering the situation of the auditory nerve. The most probable explanation of the seeming rarity of deafness in cases of disease of the cerebellum and pons is that it is seldom sought for, deafness being a symptom which often eludes the observation of both patient and physician, because fair hearing in one ear usually suffices until special attention is called to the subject.

(2.) Deafness is frequently mentioned as a symptom of nervous disease by observers otherwise most accurate, with no examination or only superficial examination of the ear, so that the reader is often left in doubt as to whether the deafness is really due to the nervous lesion (tumor, locomotor ataxia, etc.), or to a plug of cerumen or catarrh of the middle ear. In exceptionally careful reports sometimes occurs the statement "membranes normal," but apparently

[1] Published in full in the *Journal of Nervous and Mental Diseases*, October, 1883.

[2] *Boston Medical and Surgical Journal*, September 6 and October 11, 1883.

[3] *Boston Medical and Surgical Journal*, August 30, 1883.

normal membranes may co-exist with extensive disease of the middle ear. In such cases the hearing through the bone is of great value, for this is generally apparently increased in disease of the middle ear and diminished or lost in case of nervous lesion.

Even when disease of the outer and middle ear is eliminated we are not justified in jumping at once to the brain, as there still remain the inner ear and the course of the nerve fibers to the brain. How unscientific, therefore, is the record of "deafness" among the symptoms of cerebral tumor or locomotor ataxia without further particulars.

Amongst other inaccuracies may be noted the fact that the patient's own statement is often relied on in eliminating the question of deafness as a symptom. The patient's statement that he hears well is, however, of absolutely no value, a total deafness of one ear going sometimes unnoticed for an indefinite length of time until suddenly revealed by accident, as by rolling over upon the well ear in bed.

Even the regular tests by the voice, tuning-fork, and rods are subject to such inaccuracies as to require careful study and repetition in the given case. Deaf children are often brought to the aural clinics who not only deceive their parents, but who would deceive the medical practitioner unless he exercised great care, because they turn so quickly when a noise is made near them that it seems as if they must have heard it. The same children will, perhaps, take no notice of the shrillest sound if made stealthily behind the head by an experimenter who remembers that the field of vision extends laterally over not far from 180° when the head remains quiet, and much farther when it is continually in motion.

As an example of lack of care in eliminating disease of the ear itself as causing deafness, cases of locomotor ataxia, notwithstanding the efforts of Prof. Lucae, have been repeatedly mentioned with deafness as a symptom, and with no examination, or the most superficial examination of the ears. If the ears were carefully examined the cases of deafness as a symptom of locomotor ataxia would probably be reduced to a minimum. The reader has failed indeed to find a single case during a careful search through forty cases, most of the patients being more or less deaf. "Menière's disease" is often diagnosticated with no examination of the ears, while the so-called Menière's complex of symptoms is so common in disease of the middle and outer ear as to reduce greatly the number of cases in which otologists attribute them to nervous lesion.

"It is not the object of this paper to contend that the skill of an otologist should be added to the requirements for neurological training. It is rather to offer the suggestion that the ear deserves an interest at least approximating that accorded to the eye in the diagnosis of nervous diseases. It would certainly be desirable that every practitioner, whether neurologist or not, should practice the examination of the ear and hearing to such an extent as to avail himself at least of the aid gained from the appearance of the membranes, the patency of the Eustachian tubes, and the hearing by air and bone by the various tests, as well as the hearing for different tones, before making a diagnosis of lesion of the nervous auditory apparatus. And further, it is to be hoped that the time is not far distant when reports of cerebral disease ignoring the condition of the hearing and the examination of the ears will be considered as incomplete, as they are at present without record of the condition of the eyes."

Dr. C. J. Blake said that in addition to the general interest of Dr. Walton's paper his remarks point a moral, namely, the dependence of specialists in medicine upon each other; for, while in investigations in physics special students pursuing parallel lines of research help each other to draw cross inferences, in medicine the lines of research in different departments are constantly coinciding, the cross inferences are already drawn by nature. The research of each specialty, therefore, complements and enlarges that of the others, and herein lies one of the safeguards against the narrowing tendency of specialism.

Dr. Walton's paper also contains an important hint to otologists in regard to the investigation of those disturbances of function which may be due either to an affection of the middle or the internal ear, or to both combined; a review of records of aural clinics during the past fifteen years, for instance, shows that the percentage of cases recorded as "disease of the inner ear," or as "nervous deafness," has steadily decreased. This decrease is due to the advancement in the knowledge of diseases of the external and middle ears, the sound-transmitting portions of the organs of hearing, making possible the proper classification of many diseases which were previously relegated to the limbo of "nervous deafness" for want of better knowledge. While the great progress which otology has made during the past fifteen years has been in the study of the middle ear principally, enough has been done and is doing in the investigations of the relations of the ear to the brain to show that the advance of the future is undoubtedly to be in the direction of neurological research.

Dr. B. O. Kinnear inquired the seat of the cerebral center of the auditory nerve.

Dr. Walton said it was supposed to be situated in the first temporo-sphenoidal convolution. Functional disturbances of this portion of the brain may be accompanied by impairment of the sense of hearing. In a recent report in one of the journals was a diagram of an abscess occupying the exact seat of the auditory center, but no allusion was made to the condition of the auditory function. Concussion of the cerebral substance has been followed by temporary disturbance of hearing, whether by vaso-motor or by molecular disturbance is uncertain.

Dr. George B. Shattuck read the next paper upon the subject of "Kairin as an Antipyretic in Typhoid Fever, with Cases."

Dr. F. W. Draper read an account of two cases of typhoid fever also treated by kairin, and expressed the opinion that thus far the employment of this new substance has not been followed by better results than have attended the use of the more common agencies for the treatment of fever, which latter, if less energetic in lowering the temperature, are followed by no alarming symptoms, while in certainly one case in

which kairin was administered the immediate effects of the drug were dangerous to the life of the patient.

In reply to Dr. J. P. Reynolds, who asked the further history of the cases of Dr. Shattuck's report, the latter explained that they were not given in full, as his object was not to report cases of typhoid fever, or even of the effects of kairin upon the disease, for which purpose its exhibition had not been sufficiently long continued, but merely to report without prejudice practical tests of the action of the new remedy upon the pyrexia of typhoid fever and upon the patient as an individual. Dr. Shattuck did not think the course of the disease had been really modified in any of these cases, with one possible exception, and in that the modification attributable to kairin may have been more apparent than real. This patient experienced a relapse after two weeks of convalescence. In this case the kairin produced great depression of the patient's strength. The lips became pinched, the extremities were livid, and the respiration embarrassed. One of the female patients was also very much depressed by the same drug.

Dr. Reynolds remarked that it is strange that any medicine should cause a sudden and great decline in the temperature, to be followed immediately by a rise to even a greater degree than the original temperature.

The great benefit which is at present apparent from the action of this drug seems to be that which is obtained from the temporary reduction of the temperature, for it is now an accepted fact in all febrile diseases that the condition of the patient is always more hopeful when there are remissions in the temperature than when the high temperature is continuous.

Dr. Shattuck said that in some of the cases in which the temperature was high—even 105° F., the pulse presented no corresponding rate of frequency. Antipyretics were not called for by the actual severity of the disease, but the drug was administered in order to give these patients all the benefits of science.

Dr. Reynolds observed that ordinary cases of typhoid seldom call for the employment of antipyretics or for any marked or special treatment. Such patients do very well under careful nursing with very little medication.

In answer to Dr. E. G. Cutler, the reader said that the peculiar dark-green color is the only gross evidence of the elimination of kairin by the kidneys, and there is nothing characteristic about the perspiration. A quantitative analysis of the urine was not made, and the trace of albumen found is common in typhoid or other fevers.

The German description of the action of the drug was pretty closely reproduced in most of the cases here reported.

MICHIGAN STATE BOARD OF HEALTH.

[Reported for the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION.]

The regular meeting of the State Board of Health was held October 9, 1883, at its office in the capitol at Lansing, the following members being present: Arthur Hazlewood, M.D., of Grand Rapids; C. N. Tyler, M.D., of Bay City; J. H. Kellogg, M.D., of Battle Creek; and Henry B. Baker, M.D., Secretary.

The Secretary presented his annual report of property, showing valuable accessions to the library of the Board by gifts and exchanges; also his quarterly report of work done in the office, the regular correspondence alone, exclusive of many postal-card communications not copied, making 572 pages of the letter-book record.

From week to week, as magazines and other accessions to the library are received, considerable work is necessary to make references by which at any time papers on a given subject may be found; also to look up papers on various subjects, and to pack and ship books, etc., to those who undertake to write papers for sanitary conventions, or other uses. During the past quarter three such requests for books and papers have been filled.

A letter from Dr. Whelan on behalf of the common council of Hillsdale invited this Board to hold a sanitary convention in that city. The invitation was accepted, the convention to be held at such time as shall be agreed upon hereafter. A letter was read from Rev. J. Pierson, D.D., of Ionia, relative to holding a sanitary convention in that city. It was decided to hold one in Ionia, if practicable, early in December.

A communication from Hon. C. A. Gower, requesting this Board to examine plans for a proposed new building at the State Reform School was received and acted upon.

A communication was read from Dr. Isler, of the Upper Peninsula, requesting that the documents issued by this Board on the prevention of contagious diseases be translated and published in the Scandinavian and Finnish languages for the use of miners and others who do not read English, and among whom both scarlet fever and diphtheria are now present. The leaflet on communicable diseases (No. 47) was ordered to be translated and published in the Scandinavian, French and Polish languages.

Announcement of the meeting of the American Public Health Association was made, and it was voted to hold a meeting of the Board in Detroit Nov. 13, to attend the meeting of the Association, and to transact such business as may come before the Board.

A communication from the chairman of the Ontario Provincial Board of Health gave notice of a Sanitary Convention at London, Ontario, Nov. 16 and 17. Drs. Baker and Hazlewood were appointed to attend this Convention.

The secretary was directed to procure from the county clerks, for the uses of the Board, a list of the physicians in the several counties, and their postoffice address, if practicable.

A memorial was read from citizens of Morley, Mecosta county, relative to the throwing of sawdust and other refuse into a stream, a subject not controlled by the State Board, but by the courts. The memorialists had been so informed by the Secretary.

The secretary presented a résumé of the work of other Boards of Health.

The Boston, Mass., Board of Health has lately placed measles on its list of diseases to be reported

to the Board by householders and physicians. That Board has publicly offered to superintend the process of disinfection, if requested to do so by the householder. Dr. Kellogg thought it desirable that Boards of Health superintend disinfection after contagious diseases, where possible. He thought disinfection by sulphur would be more efficacious, if carried on in a moist atmosphere.

Drs. Hazlewood and Baker were appointed a committee to examine and report on text-books on hygiene with special reference to alcohol, if any such books are sent to the Board for examination.

Dr. Kellogg for himself and Dr. Avery, Special Committee on the Present Knowledge Respecting Diphtheria, reported a paper embodying a large number of replies to a circular of inquiry, some being very valuable. The report was accepted with thanks, and ordered printed in the annual report.

The next meeting of the Board will probably be for the examination of plans for buildings at the State Reform School.

DOMESTIC CORRESPONDENCE.

CAMBRIDGE, MASS., Oct. 29, 1883.

N. S. DAVIS, M.D., EDITOR:

In an able and comprehensive report of the committeee on Practical Medicine and Epidemics of the Illinois State Medical Society, for 1882-3, published in the weekly JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, October 13, last, the virtues attributed to alcohol as an internal remedy for its germicide power is referred to; also in the same report is mentioned Dr. G. M. Sternberg's recent experiments on the germicide powers of a large number of medicinal agents. According to this report Dr. Sternberg's experiments show that the micrococcus of pus one of the most easily destroyed germs required the presence of 20 per cent. of alcohol for its destruction, while the bacteria termo survived after being immersed in a solution of 95 per cent. alcohol twenty-four hours. From this it is calculated that the amount of alcohol required to be present in the blood of a patient weighing 160 pounds, to destroy the germs most susceptible to its influence would be more than a quart, "a much larger quantity than the most enthusiastic advocate of its use would deem safe to administer." Considering the importance of the subject, and having been accustomed for a long time to believe that many diseases and pathological conditions are dependent upon the presence of the germs, and that the administration of full but safe doses of alcoholic liquors when resorted to early, have been productive of much benefit in aborting or cutting short septic and zymotic diseases, I have thought it worth while to dwell somewhat upon the subject and to see whether there can be discovered certain factors or conditions which tend to substantiate such clinical experience. I believe too, there is a growing feeling and experience on the part of the medical profession that there are many medicinal agents which can be administered in doses practically safe for the patient, and yet be sufficiently effective for the destruction of the supposed germs or at least so as to modify its habits and constitution in its pathogenic condition, that its ravages on the human organism can be arrested or prevented.

In referring to the careful and elaborate experiments of Dr. Sternberg, it appears they, for the most part, were conducted in culture apparatus outside of the body and thus his experiments only represent the results of the germicide reagents or germs *other than pathogenic ones*, a distinction very important to be kept in mind by the experimenter if he expects much value to result from his labors. For instance, if a certain amount of alcohol or other reagent is required to destroy or modify a micrococcus in a culture fluid outside of the animal organism, who will venture to say that that amount of the medicinal agent is needed after the micrococcus has gained admission into the blood, which in the early stages of disease may be well-nigh fatal to such micrococcus? Sternberg has recognized this distinction and has more than once made mention of pathogenic organisms. Sternberg remarks in one place as follows: "Evidently therapeutic value, assuming the correctness of the germ theory, cannot be gauged by germicide power alone, for it is possible that a reagent, which possesses this power in but slight degree or not at all may nevertheless be capable of restricting the development of pathogenic organisms, and thus limiting their power for mischief." Now, if it be permissible to take this view in the premises, as Sternberg has sanctioned, should we not look upon his own "Experimental data," as helps only in a most general way in our therapeutic practice? Surely with such a view of the case it would not seem to be necessary to give a quart of 95 per cent. alcohol, nor three and one-half grains of mercuric bichloride to prevent the development of the septic micrococcus in the blood.

Sternberg, speaking of "Bacteria in healthy individuals," says Nature has placed, or in other words, evolution has developed in the living tissue of animals, a resisting power against the encroachments of bacterial organisms invading and surrounding them, which is sufficient for ordinary emergencies. But when the vital resistance of the tissues is reduced, on the one hand by wasting sickness, profuse discharges, etc., or on the other the vital activity of the invading parasitic organism is increased, the balance of power rests with the infinitesimal but potent micrococcus." Again he says: "Certainly there would be an end to all animal life, or rather there never would have been a beginning, if living animals had no greater resisting power to the attacks of these parasites, which by numbers and rapid development make up for their minute size, than has dead animal matter."

These two citations not only bear the impress but the seal of philosophic and demonstrated truth, and this will all the more appear self-evident when we consider the fact that the micro-organism is isolated from the living animal and placed in a culture fluid when he has no enemies to encounter nor obstacles to overcome, but on the other hand has the best possible chance for full and perfect development out of the rich and highly nourishing pabulum offered for

his choice. Under such circumstances is it any wonder he becomes, if not a formidable, at least an extremely tough beast? Such being the fact our therapeutic practice, notwithstanding the many experiments claimed to have been so elaborate and painstaking, must, as already intimated, depend almost entirely upon empiricism, clinical experience and observation in the choice and use of medicinal agents of supposed germicide nature. This thought further leads to the consideration that the product of these giant or monster germs on entering the animal tissues may take on a retrograde process, or as it were, a sort of atovistic condition in which they may become sensitive to exceedingly small doses of germicide reagents. However this may be, all that is necessary for the therapeutist is, so to apply his medicinal agents that the development of the pathogenic micro-organism shall be arrested, if not by being destroyed, by being rendered *hors-du-combat* until the vital powers of the animal organism can react and the intruding micrococcus be expelled from its borders. Very respectfully,

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BOOK REVIEWS.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA. Thirty-fourth annual session. Volume XV., 1883. Published by the Society.

The most casual observer of medical progress in the United States must have noticed from the report of the proceedings annually made in the medical journals that the Medical Society of the State of Pennsylvania is accomplishing a great deal of valuable scientific work. For several years the annual volume of transactions has been found teeming with records of experimental and clinical investigation, giving the results of the labors of the most eminent and accomplished physicians of Philadelphia and the entire State of Pennsylvania. Such original observers and indefatigable workers as Oscar H. Allis, R. J. Levis, William Goodell, Trail Green, R. S. Sutton, Wm. Pepper and James C. Wilson have chosen the annual meeting of the State Society as the occasion for presenting to the profession the result of their work. The volume before us embodies the proceedings of the thirty-fourth annual session, held at Norristown in May, 1883.

The address of the President, Dr. William Varian, of Titusville, is devoted to the consideration of some interesting hygienic problems, among others we note the question of cremation and modern means for the restoration of inebriates. The address throughout is thoughtful and suggestive.

The address on Medicine is by Dr. James Tyson of Philadelphia, and is a brief paper on "Malarial Hæmaturia." We presume its published title is adopted solely to comply with custom, since no report is made of recent advances in medicine or any of the topics usually discussed under this title of the "Address in Medicine in Medical Societies." This paper occupies only seven pages, is carelessly written, and contains nothing strikingly novel or unique. We believe Dr. Tyson could have prepared a paper more worthy the occasion. The "Address in Surgery," is by Dr. Alex. Craig, of Columbus; the "Address in Obstetrics," a most interesting paper, is by Dr. George O. Moody, of Titusville; the "Address in Hygiene," is by Dr. Henry Leffmann, of Philadelphia; and the "Address in Mental Disorders," is by Dr. John Curwen, of Warren; Dr. Peter D. Keyser, of Philadelphia, contributes "Some Ophthalmological Observations During Ten Years Service in Mill's Eye Hospital," illustrated by numerous wood cuts, which will interest the cultivators of ophthalmic science. Dr. Lowry Sibbett, of Carlisle, relates his experience in obstetric practice, with an analysis of one hundred consecutive cases. Dr. Hugh Hamilton, of Harrisburg, contributes an article on "Artificial Infant Alimentation," which is the result of extensive investigation and study. The subject is treated from the stand point of chemical analysis and physiological action, and does not include a clinical study of the various articles for artificial infant feeding. This subject is of such vital importance and demands such increasing consideration with our growing civilization, that every contribution to the subject is welcome. This volume contains two papers on "Insane Asylums and the Management of the Insane." We heartily wish that every official of all the insane asylums of this country would read and ponder that of Dr. Samuel Ayers, of Pittsburg, entitled "Our Asylums and our Insane." The other paper treats of "Insane Asylums and their Relations to the Community," by Dr. R. H. Chase, of Norristown. Dr. DeForest Willard, of Philadelphia, in an admirable article advocates the "Early Treatment of Club Foot," deprecating the custom which "waits for the child to be old enough for the operation." Dr. E. A. Wood, of Pittsburg, treats of "Deformity Following Dislocation of the Foot Outwards at the Ankle Joint."

Dr. Samuel W. Gross, of Philadelphia, presents in brief a Plea for the Early and Thorough Removal of Carcinoma of the Breast. His views on this subject have been made current through his Treatise on Mammary Tumors and in several papers published in the last few years.

Dr. James C. Wilson, of Philadelphia, in a scholarly paper presents the Modern Method of Treating Purulent Pleural Effusions. Dr. Wilson demonstrates his well-known ability as an accomplished and expert clinician in this article. It is in reading such a paper as this that we regret that the Transactions of Societies are not more widely distributed. Dr. Wilson's paper is so thoroughly practical and treats of such an important class of cases that it should be in the hands of every practitioner in the land. The treatment is based upon the principle that the containing pus cavity is to be emptied and then obliterated by reparative inflammation. For this purpose it is deemed essential that the opening when made into the chest be kept open, drained by a retained tube, and washed out daily. We give Dr. Wilson's method in so far as descriptive of the oper-

ation in his own words: "The preliminary aspiration, the puncture by means of short trocars (not exceeding in length two inches), the canula being retained only until the pus ceases to flow, when a soft rubber catheter (Nelaton or Jacques') is slipped into position through the metal canula, which is then withdrawn. Catheters are preferable to sections of drainage-tube by reason of the ease with which they can be introduced into the sinus by means of a probe. It is occasionally necessary to change the catheter, or to remove it to clean it. The catheter is retained throughout the treatment by means of silk threads run through its substance and confined to the chest by means of strips of plaster. The washing of the cavity by means of a ball syringe and a system of soft rubber tubing, the connections being made by sections of tapering glass tubes.[1] This operation is to be repeated once a day. The temperature of the water should be from 102° to 105° F., and the amount of force used very slight indeed. At the first sitting no more should be injected each time than one-fourth the volume of the pus withdrawn. This injection is to be repeated at each sitting until the water returns only slightly turbid or clear. After having used for this purpose many of the disinfectants in vogue, I have settled upon the mercuric bichloride as the most efficient and convenient. At first I use 1 part to 15,000, then 1 to 8,000, and finally 1 to 5,000. In the intervals of the dressings the patient wears a large pad of oakum to absorb the discharge. As the cavity contracts and the discharge diminishes, the intervals between the washings may be much prolonged; when the discharge becomes serous and does not exceed two fluid-drachms, the tube should be withdrawn and the sinus permitted to heal. If a spontaneous opening have formed in the chest-wall, this plan of treatment is not thereby modified. Such sinuses are badly located, oblique, tortuous, and always ineligible for operative purposes. In such cases proceed as if no spontaneous opening existed. After the operations such openings speedily heal. Bronchial fistulæ are equally without influence in modifying the treatment."

Dr. William Pepper, of Philadelphia, follows in a contribution to the "Clinical Study of Typhlitis, and Perityphlitis." This paper is just what its title indicates—viz., a clinical study—and is the work of a logical, systematic and painstaking clinical obsever. A group of most interesting cases are here detailed, and the author has brought to the study of this vitally important class of cases a thorough familiarity with the history and literature of the subject. The paper is eminently practical, and deals more particularly with the diagnosis and treatment of the various stages of typhlitis and perityphlitis. We regret that our space will not allow a résumé of this paper. Dr. E. O. Bardwell, of Emporium, contributes a brief paper on "Scarlatina," detailing his personal experience with this disease. Dr. John V. Shoemaker, of Philadelphia, follows in an interesting and instuctive paper on the "Hair, its Use and Care." This paper, as also the ingenious contribution of Dr. R. J. Levis, of Philadelphia, on "Surgical Expedients in Emergencies," has been elsewhere published in abstract and hence both are familiar to the readers of current medical literature. Both gentlemen are so well known in connection with dermatology and operative surgery respectively as to deservedly receive the attention of the profession whenever their views are promulgated. The following papers, eminently practical and instructive, we are prevented from noticing in detail by want of space: "Diagnosis, Prognosis and Treatment of Mitral Stenosis," by J. T. Eskridge, M.D., of Philadelphia; "Lithæmia," by J. B. Walker, M.D., of Philadelphia; "Clinical Notes on Conrallaria Majalis," by Edmund T. Bruen, M.D., of Philadelphia; "Abnormal Ocular Conditions," by William S. Little, M.D., of Philadelphia; "House Plants and Lung Disease," by J. M. Anders, M.D., of Philadelphia. The remainder of the volume is occupied with reports of the County Societies. These reports show the local societies in the various counties in the State of Pennsylvania to be in excellent working condition, and thoroughly *en rapport* with the State Society. Indeed, one cannot peruse the ninety-six pages of this volume devoted to the reports of the County Societies without a feeling of felicitation. In addition to setting forth the condition of the Societies in the various counties, interesting and valuable data are here recorded of local epidemic influences, local sanitation, and clinical observation. This portion of the volume particularly and eminently reflects well-merited distinction upon that most efficient of permanent secretaries, Dr. Wm. B. Atkinson, of Philadelphia, whose industry and intelligent supervision, as well as the efficiency of the organization, is conspicuous. This portion of the volume is the strongest argument which could be offered in reply to the objections which are urged against the publication of the proceedings of State Societies in this form instead of through the columns of the medical press. It would be quite impossible to gather within one cover the data here recorded unless the State Society of Pennsylvania could equip, edit and publish a journal of its own. This for State Societies is, of course, impracticable at the present time. The volume closes with a complete alphabetical list of the presidents and permanent members of the State Society, the officers and members of the County Societies, and appended to the whole is an alphabetical list of members of County Societies with their post-offices. Those only who have some practical knowledge of the work of a secretary can fully appreciate the labor devolving upon that officer in the preparation of such a volume. The entire profession of Pennsylvania is to be congratulated upon the condition of the State Society as indicated by the volume of Transactions for 1883.

[1] The author maintains that the chest cavity cannot be properly washed out by a tube passed in at one opening and out at another (through drainage), but with a single opening the distension of the cavity with due caution can be practiced at each sitting when the syringe is used.

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT UNITED STATES ARMY, FROM OCTOBER 26, 1883, TO NOVEMBER 2, 1883.

Moore, John, Lieutenant-Colonel and Assistant Medical Purveyor: to be relieved from duty as Medical Director, Headquarters Department of the Columbia, to proceed to San Francisco, California, and assume charge of the medical purveying depot in that city. (Par. 10, S. O. 243, A. G. O., October 24, 1883.)

McKee, James C., Major and Surgeon: relieved from duty in the Department of California and assigned to duty as Medical Director Department of the Columbia. (Par. 5, S. O. 249, A. G. O., October 31, 1883.)

Wolverton, Wm. D., Major and Surgeon: granted leave of absence for one month. (Par. 6, S. O. 201, Department of the East, October 24, 1883.

Merrill, J. C., Captain and Assistant Surgeon: granted leave of absence for one month. (Par. 7, S. O. 201, Department of the East, October 24, 1883.)

NECROLOGY.

ZITZER, JOHN JACOB, M.D., was born in Friedburg, Prussia, February 20, 1826; died of general debility, the result of pneumonia, at his residence in Baltimore, Md., October 30, 1883. He was descended from an old aristocratic and influential family in Germany. After graduating from Heidelberg, he entered the Prussian army as a surgeon. Here he was noted for a high order of intelligence, and for his republican principles and soldierly bearing, and professional skill. His democratic and red republican views led to his resignation from the army. He then went to Hungary and accepted service there, and became Surgeon General of the Hungarian army. After the failure of the revolution there he came to America, and settled at Carlisle, Pa., where his abilities as a physician and his worth as a citizen led to extensive employment in his profession, and to popularity, and particularly with the German population of Pennsylvania. His views of government were so pronounced, that he soon began to take part in local, State, and national politics, and became quite a leader among the Germans. He was at one time Chairman of the Republican State Central Committee of Pennsylvania. Dr. Zitzer had the pleasure of first introducing Carl Schurz to a Republican mass meeting, where his eloquence was so effective. The doctor was extensively known throughout the State of Pennsylvania, and held in high esteem by the leaders of the Republican party, and had for warm personal friends General Grant and Simon Cameron. He was a member of the Cumberland County Medical Society, and a delegate from it to the American Medical Association in 1869. He attended the meetings of the latter again in 1871 and 1872. He was made an honorary member of the California State Medical Society, when in San Francisco in 1871. He was as restless in his medical views as he was revolutionary in political principles. Doctor Zitzer had acquired a considerable estate, among which were two valuable farms near Carlisle, which he leaves to his three daughters. To his faithful housekeeper and attendant he gave a hotel property in Carlisle. His remains were taken to Carlisle, and interred in the old grave-yard. J. M. T.

MONTGOMERY, EDWARD, M.D., of St. Louis, Mo., was born in Ballymena, near Belfast, County Antrim, Ireland, December 20, 1816; died of pneumonia at his residence, in St. Louis, Mo., October 29, 1883. His education was obtained in the Royal Academical Institution of Belfast, and his medical studies pursued at Edinburg, where he received his degree of M.D. in 1838. Shortly after he began practice in his native place, but in 1842 he came to America, and passed some years in the States of Louisiana and Mississippi. But in 1849 he settled in St. Louis as a general practitioner, where he acquired an extensive and responsible business. Dr. Montgomery was a man of agreeable manners and of exemplary character, and esteemed by the public and his professional brethren. In 1839 he was united in marriage to Hannah French, of French Park, near Belfast, who survives him with six children—four sons and two daughters. Dr. Montgomery re-visited Europe and his native place in 1873, being delegated that year from the American Medical Association to the British Medical Association, and was also one of the Commissioners from the State of Missouri to the Vienna Exposition, both of which he attended. The doctor was a careful reader of the best medical works, a close and an accurate observer of disease, and an occasional contributor to medical journal literature. I cannot enumerate his writings, but among them were essays on congestion, typhus, typhoid, erysipelatus, and puerperal fevers; on cholera, croup, cerebro-spinal meningitis, illeo colitis, hepatic colic, post-partum inflammation, scarlatina, diphtheria, uterine hæmorrhage, variole, anti-phlogistic treatment, and differential diagnosis of croup and diphtheria, etc. Dr. Montgomery was an active and influential member of the St. Louis Medical Society, and of the St. Louis Medico-Chirurgical Society, and was honored with the presidency in both. He was also a valued member of the Missouri State Medical Society, which he served as vice president and as president. He became a member of the American Medical Association in 1872, and attended the following year. Dr. Montgomery had a taste for the exact and natural sciences, and was a member of the St. Louis Academy of Sciences. The death of a physician of medicine in actual practice, after but a brief illness, produces quite a shock to a community where he is intimately known, as was Dr. Montgomery for a third of a century. Besides his eminence as a physician, he discharged all the duties of a good citizen, an indulgent parent, a kind husband, and the faithful friend. His funeral took place from the Central Presbyterian Church. J. M. T.